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TORONTO, CANADA, JANUARY, 1903.

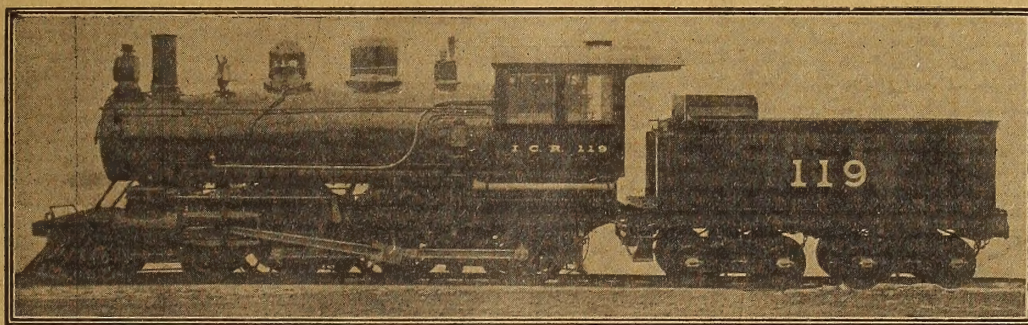
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WIRELESS TELEGRAPHY.

By H. T. Barnes, D.Sc., F.R.S.C., McGill
University, Montreal.

Wireless telegraphy, or the transmission of signals through space by means of electric waves, is of comparatively recent development, although the idea of the existence of electric waves dates back some 40 years. In 1868 Clark Maxwell, then Professor of Physics in Cambridge university, first published a theory showing that an intimate relation between electricity and light existed. This theory, which has received most conclusive substantiation since then by eminent physicists, is known as the electromagnetic theory. It tells us that electric waves and light waves are similar, that they represent a transfer of energy by means of the all-pervading universal ether, that they differ radically in their effect on the physical senses, in wave length and period of vibration, and that both possess the same velocity of 187,000 miles in a second. Many of the exponents of the electromagnetic theory discussed the properties of electric waves long before they were experimentally demonstrated.

Our experimental knowledge of the existence of electric waves dates from about 1886. Hertz, a German physicist, while working under the illustrious Helmholtz discovered that small sparks could be made to pass between two conductors when held near a circuit in which electric oscillations were set up. He soon discovered that this was due to the action of electric waves, and realizing how fundamental in importance this was to the thorough knowledge of the electromagnetic theory he commenced a series of experimental researches, which were of such a brilliant and productive nature as to mark them as amongst the most important investigations in the whole domain of science. A host of experimenters then followed and amongst them Signor Marconi, who has since become so closely identified with the subject.

In 1890 the coherer was discovered by Branly and simultaneously by Oliver Lodge. Lodge's coherer was a very delicate instrument and by its means the electric waves could be detected at a much greater distance than was possible with the conductors used by Hertz. In 1895 in Cambridge Mr. Rutherford, now Professor of Physics in McGill university, first showed that the waves could be observed by a magnetic detector. He discovered that a weakly magnetised steel wire becomes instantaneously demagnetised under the influence of electrical oscillations such as

electric waves. With his detector he succeeded in establishing communication at half a mile.

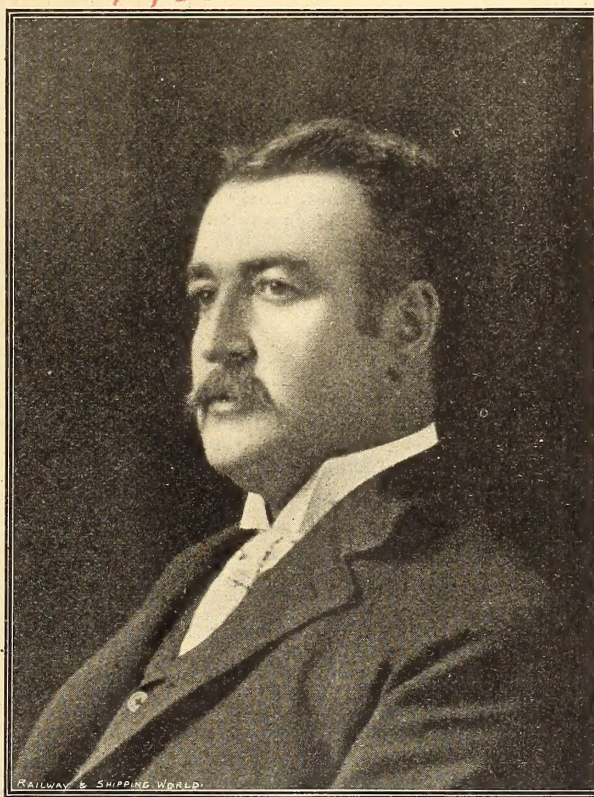
In 1896 Marconi went from Italy to England, and with the help of a Government grant obtained through the instigation of Sir Wm. Preece, head of the English telegraph department, commenced a series of experiments in wireless communication. Very rapid strides were made, and the distance to which signals could be sent was very much increased. An important development soon followed

These travel out in a spherical form on all sides just as the ripples grow around the spot where a stone is dropped into quiet water. Such an oscillating current is produced when a spark passes between the metallic knobs attached to the secondary or fine wire coil of an induction coil. This oscillation produced by the sudden rush back and forth of the spark is rapidly damped and soon dies out. To increase the time of the oscillation large metal plates are connected to the knobs. The larger the plates the slower is the time of vibration and the longer the wave.

The primary circuit of the induction coil is connected with a battery of accumulators or storage cells of low voltage. These would not in themselves be sufficient to cause a spark to pass between the knobs, but by an induced action of the magnetism set up by the primary coil of the induction coil a current of very high voltage is set up in the secondary, which causes the spark and consequently the very rapid oscillations. To receive the waves and render them apparent, two metal rods are stretched for some distance. These rods terminate in knobs between which sparks are seen to pass by a passage of a current of electricity collected from the waves which impinge on the rods. Hence, whenever sparks are produced in the transmitter, as the source of electric waves may now be called, sparks of much smaller intensity are seen to pass between the knobs of the receiver. The farther away the receiver is placed the smaller the sparks between the knobs.

To detect the waves at great distances, instead of the spark gap between the metal rods, the coherer or magnetic detector must be inserted. The coherer depends in principle on the discovery of Branly and Lodge that a fine metal powder becomes a good conductor for electricity when under the influence of electric waves. When attached to a storage battery only a feeble current can find its way through the poorly conducting metal powder of the coherer, but as soon as a wave is received the resistance is

enormously diminished and a stronger current passes which is sufficient to operate a telegraphic relay. This relay brings a second and more powerful battery into play which operates a telegraph sounder or electric bell. In order to produce the telegraphic code it is necessary to produce an immediate decohering of the metal powder after the waves have ceased. This decohering may be produced by the direct action of the trembling hammer of the electric bell or by other mechanical devices. By a long continued stream of sparks from the



E. N. BENDER,

General Purchasing Agent, Canadian Pacific Railway.

in regard to the use of a vertical wire for transmitting the waves instead of a horizontal one which increased the distance still more. Although Marconi has come to be chiefly associated with developments in wireless telegraphy other systems have been established in various countries, which involve slight modifications in the apparatus employed. In Germany the Arco-Slaby system is used with success; and in the United States the DeForest is being installed in many places.

Wherever a rapidly oscillating electric current exists waves are set up in the ether.

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WIRELESS TELEGRAPHY.

(Continued from page 1.)

transmitter a continued train of electric waves
causes a continued action on the receiver. A
short stream from the transmitter causes a
short signal on the receiver. The dashes and
dots of the Morse system immediately be-
come possible. The chief modification to
the simple arrangement which was introduced
by Marconi was to replace the metal plates on

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the transmitter by two vertical wires, one con-
nected to earth and the other rising directly
into the air. By means of similarly arrang-
ed collecting wires on the receiver signals for
hundreds of miles have been accomplished
with the greatest ease.

It is at once apparent that on account of
the spreading out of the spherical waves from
the transmitter any receiver within range of
the waves will respond to the signal. Secrecy
is by this impossible. To render any one re-
ceiver or set of receivers sensitive to a mes-
sage while all the others remain silent it be-
comes necessary to arrange a form of tuned
telegraphy, by which the transmitter may be
arranged to give out waves of one particular
period. A familiar form of tuning is given
when a musical note is sounded near a piano.
The string of the piano, which vibrates in the
same period as the note will immediately
sound in sympathy, while all the others not so
tuned remain silent. Before wireless tele-
graphy becomes a commercial success a sim-
ilar result must be accomplished. Experi-
ments along this line are being rapidly contin-
ued with no small measure of success, and
already many important results have been
accomplished.

Recently Marconi astonished the world by
stating that he had received signals across
the Atlantic, a distance of over 2,000 miles.
It has been demonstrated in Europe that mes-
sages can be flashed 1,000 miles with ease
across highlands and lowlands as well as
across water. In the U.S. wireless tele-
graphy is being carefully tested by the army
and navy. Stations are to be installed at Fort

Wadsworth and Fort Hancock, where it is hoped the present cable may be superseded. The new Marconi station at Glace bay, N.S., has, it is stated, 150 aerial wires each 140 ft. long before they meet in the great central wire which runs downwards to the receiver. It is hoped to extend the distance to Cape Town in South Africa, and experience only will show whether this will be accomplished. Marconi's plans are to establish a chain of long distance wireless stations in different parts of the world. One station will be in Canada, two in the U.S., one in Central America or the West Indies, one in South Africa and one on the continent of Europe, besides the present one at Poldhu in Cornwall. Many of the great Atlantic lines have already established wireless stations on their ships, and communication is maintained far out to sea.

During the passage of the special train on the G.T.R. between Toronto and Montreal on Oct. 13, bearing the members of the American Association of General Passenger and Ticket Agents from Chicago to Portland, it was demonstrated that communication could be maintained between a station and a fast moving train by means of electric waves. No attempt was made to cover distances comparable in size with those attained by Marconi and others, but with comparatively simple laboratory apparatus it was possible to keep the train in touch with the station for from 8 to 10 miles. St. Dominique was selected as the transmitting station where two large metal plate vibrators 10x12 ft. connected with an induction coil of the usual pattern were situated. On the train itself the waves were received by collecting wires connected to a coherer of nickel and silver powder. The relay operated electric bells in three cars. The collecting wires were run through the guides for the train signal cord, and extended on both sides of the coherer for about one car length. To obtain the maximum effect it would have been better to have had a long vertical wire, but since such was impossible, the horizontal wire was used. Although these were placed INSIDE the steel frame cars strong and definite signals were obtained over the distance named. Another difficulty militated against obtaining the maximum sensitiveness as, owing to the natural vibration of the train resulting from its great speed, it was impossible to have the relay adjusted to its most sensitive point. In spite of these difficulties the distance to which signals could be sent to the train was eminently satisfactory, and with more refined apparatus greater distances could without doubt be obtained. The success of this form of wireless telegraphy, of which this was but a pioneer experiment, opens up yet another method of providing for the safety of the travelling public.

White Pass and Yukon Ry. Report.

The annual meeting was held in London, Eng., recently. The report for the year ended June 30, 1902, also contains the results of the trading of the local companies, all of whose capital is owned by the W. P. and Y. R. Co., for the year ended Dec. 31, 1901. A report by S. H. Graves, President of the local companies, and a report by G. Wilkinson, of Chicago, the Auditor of the local companies, was also submitted. The profit and loss account, after providing for debenture stock and debenture interest and all charges, shows a net profit for the year of £136,967 os. 4d., to which is added £14,373 2s. 10d. carried forward from last year, making £151,340 3s. 2d. of profit up to June 30 last. Out of this a dividend of 10s. a share, or 5% on the share capital, was paid to the shareholders on Dec. 12, 1901. This absorbed £68,750, leaving on hand at June 30, 1902, £82,590 3s. 2d. During the year the directors resolved to create

a sinking fund to provide for the repayment of the £750,000 of debenture stock which will fall due Dec. 31, 1930. To insure such repayment on a basis of 3% per annum compound interest, a deed of trust has been entered into with the trustees of the debenture stock, the Railway Share Trust and Agency Co., which provides that £16,586 be set aside out of the profits each year and invested, or an equivalent amount of debenture stock of the Co. be transferred into the joint names of the Co. and the trustees. Out of the £82,590 3s. 2d. balance of profit shown at the credit of profit and loss in the balance sheet of June 30, 1902, there remains, after providing for such sinking fund, £66,128 2s. 4d., out of which income tax has to be paid. In view of the fact that, owing to the reduction in the rates charged during the current season of 1902, the profits for the financial year ending June 30, 1903, are expected to be less than those in the accounts now submitted, the directors do not recommend any further distribution by way of dividend out of last year's profits, but propose to reserve the undivided profits, in order to build up a strong financial position to provide for all contingencies.

PROFIT AND LOSS ACCOUNT YEAR ENDED JUNE 30, 1902.

Interest on securities of local companies paid and accrued to date.....	£	55,522	8	9
Dividends on Shares of local companies as declared.....	159,243	2	10	
Transfer fees, etc.	62	7	6	
	£	214,827	19	1
* Interest on 5% 1st mortgage consolidated debenture stock.....	35,512	0	10	
Interest on 6% mortgage debentures (navigation bonds).....	15,333	6	1	
Directors' and trustees' fees.....	2,216	13	4	
Management and London charges.....	4,597	19	6	
Interest on bills and advances.....	892	11	4	
Expenses Issue 5% 1st mortgage consolidated stock.....	5,108	10	0	
Legal expenses and stamps.....	1,146	13	6	
Audit fee to June 30, 1901.....	78	15	0	
Income tax.....	12,331	19	2	
Loss in exchange.....	642	8	0	
Profit carried to balance sheet.....	136,967	0	4	
	£	214,827	19	1

BALANCE SHEET JUNE 30, 1902.

Shares of local companies and debentures and mortgages over railway and navigation companies, consideration for which is represented by issue of share capital, debenture stock and debentures in terms of agreements.....	£	2,374,011	10	10
Balance due from local companies.....	93,224	15	5	
Cash at bankers and in hand.....	1,079	17	11	
	£	2,468,316	4	2

Share capital—				
Authorized 170,000 shares of £10 each.....	£	1,700,000		
Issued 137,500 shares of £10 each fully paid.....	£	1,375,000	0	0
5% 1st mortgage consolidated debenture stock—authorized..£ 750,000				
Issued.....	746,702	0	0	
6% mortgage debentures (navigation bonds)—authorized and issued.....	255,555	0	0	
Sundry creditors.....	8,469	1	0	
Profit and loss account.....	82,590	3	2	
Balance of profit per Balance Sheet June 30, 1901..£289,373	2	10		
Less dividend of £2 10s. a share declared Aug. 9, 1901, and satisfied by new issue of Shares.....	275,000	0	0	
	£	14,373	2	10
Profit year ended June 30, 1902.....	136,967	0	4	
	£	151,340	3	2
Less dividend of 10s. a share paid Dec. 12, 1901.....	68,750	0	0	
	£	82,590	3	2
	£	2,468,316	4	2

In moving the adoption of the report and accounts, the Chairman, Hon. S. Carr Glyn,

said that during 1901 16,472 passengers and 33,471 tons of freight were carried on the railway. S. H. Graves, President of the local companies, travelled some 25,000 miles in the Co.'s service. The purchase of the Canadian Development Co.'s fleet had proved most profitable. The net earnings on its operation during 1901 were \$276,636, and the net income, after writing off over \$100,000 for depreciation and renewals, and after providing for all expenses and mortgage interest, was \$86,842. It gave the Co. the control of the entire traffic from Skagway to Dawson, which was of the highest importance in the rate war with the Northern Commercial Co. last summer. Although receipts have fallen this year, the tonnage has shown but a slight decrease. Prior to the opening of the W. P. and Y. Ry., almost the entire Yukon traffic was in the hands of companies owning steamboats on the lower river, and connecting at St. Michael's with ocean vessels. On the opening of the railways the traffic was diverted to the Skagway-Whitehorse route, and to offset this the lower river companies, except the North American Transportation and Trading Co., consolidated last year under the name of the Northern Commercial Co. These two companies last year entered into a traffic agreement with the W. P. and Y. Co., but were disappointed in not getting as much traffic as they expected, and the result was that towards the close of last season the Northern Commercial Co. adopted the policy of selling its goods in the Dawson market at such low prices as shippers by the W. P. and Y. R. could not afford to meet while paying the tariff rates. The avowed intention was to deter the smaller merchants from shipping by the W. P. and Y. R. During the winter the Northern Commercial Co. developed this policy still further, necessitating a reduction in rates on the W. P. and Y. R. route with the opening of navigation, to enable the smaller merchants to compete in the Dawson market. This was met by further cuts in prices by the Northern Commercial Co., and further reductions in W. P. and Y. R. rates. Meanwhile the North American Transportation and Trading Co. took the benefit of the W. P. and Y. R.'s low rates and the advantages of that route, and sent a large proportion of their shipments by the W. P. and Y. R., instead of by their own boats. It is too soon yet to prophesy as to next season, but negotiations are in progress with a view to putting an end to this unsatisfactory state of affairs, which it is hoped will result in permanently improved conditions. Apart from rivalry with the lower river companies, the W. P. and Y. R. has reduced our rates to assist in developing the country. Before the railway was made, the cost of getting a ton from Skagway to Dawson was quite £200. In 1899, the year the railway was opened, the cost was reduced to about £50, the railway receiving about £30 a ton. In 1900, when the railway was extended to Whitehorse, and through bills of lading could be issued, the cost was reduced to about £25 a ton from any Pacific port to Dawson. In 1901, the W. P. and Y. R. having acquired its own fleet of steamers, the price was reduced to about £19 a ton, including ocean voyage. In 1902, in order to encourage the development of the country, the W. P. and Y. R. voluntarily reduced the average rates to about £12 a ton from Vancouver, etc., to Dawson, and, owing to the war of rates, this had to be further temporarily reduced. The Chairman referred to the mining industry, which is at present confined to placer mining and expressed the belief that quartz development would follow there, as it generally did elsewhere, over 4,000 quartz claims having been registered this year. In reference to the decision not to pay any further dividend out of last year's profits, the Chairman pointed out that dividends have been paid out of the total profits earned up to June 30, 1902,

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturer of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

as follows:—Out of the profits from the commencement of the Co. to June 30, 1901, 5% in cash and 25% in shares, and out of the profits for the year ended June 30, 1902, 5% in cash, with a balance carried forward of £66,128 2s. 4d., equal to nearly 5% more. It is estimated that, in spite of the war of the profits that has beset the Co.'s career this season, the earnings of 1902 will show a fair margin of profit after providing for all fixed charges, interest and expenses.

Alberta Railway and Coal Company.

The following report for the year ended June 30th, 1902, was presented at the annual meeting in London, Eng., recently:

The aggregate coal sales during the year were 148,059 tons, against 171,656 during the previous year, a decrease of 23,597, attributable entirely to the smaller quantity taken by the C.P.R. by reason of that Co. taking a greater portion of its supply from new mines which have recently been opened along the line of the Crow's Nest Pass Ry. in Alberta. The general coal sales show a satisfactory increase. The earnings of the railway, apart from the carriage of the Co.'s coal, show a decrease of \$2,303, the gross returns having been \$168,192, against \$170,495 for the preceding year. This decrease is owing to a much smaller quantity of Crow's Nest Pass coke having been carried to Montana for use in the smelters there, but the earnings derived from passenger and other traffic show a gratifying increase. It is not expected that the change of gauge of the Montana section of the railway will be completed by the Great Northern Ry. much before the end of the year. This Co. will continue to derive a satisfactory revenue from this portion of the line until it is taken over by the G.N.R. Good progress is being made with the changing of the gauge of the Co.'s line from Lethbridge to the boundary, and it is expected that the work will be completed by the end of Oct. After payment of the interest on the prior lien debenture stock there remains a balance of profit of £10,220 17s. 1d., which, added to the balance of £35 2s. 9d. from the previous year's accounts, amounts in all to £10,255 19s. 10d. The auditors having certified this amount, interest at the maximum rate of 4% has been paid to the "A" debenture stockholders, and £255 19s. 10d. carried forward. With regard to the 100,000 acres of land sold to the Canadian North West Irrigation Co. by this Co. and the Lethbridge Land Co., the proportion which belonged to this Co., 73,373.68 acres, having been settled for in full, the total debt to the Dominion Government for survey fees has been discharged, and £14,701 of prior lien debenture stock has been redeemed at a premium of 10%, the stock outstanding being reduced to £35,276. A further sum of £2,719 13s. 6d. has been received from the Irrigation Co., in payment for 10,647 acres of land (being a part of the additional 150,000 acres which, under its agreement with this Co. and the Lethbridge Land Co., it had the option to purchase), and this amount has been placed to the credit of the prior lien debenture stock redemption fund. As a result of the Canadian North West Irrigation Co.'s successful operations, the settlement of the district tributary to the Co.'s business has, during the year, been most satisfactory, the immigration having exceeded 4,000 souls. The various settlements have harvested very satisfactory crops this year, and a spirit of content permeates the whole community, which will, no doubt, induce further immigration, and create increased business for the Co.'s railway and coal mines. In addition to the lands sold to the Irrigation Co., about 10,000 acres have been sold to actual settlers, and the directors have every reason to believe that as a result of this year's successful crops

there will be an improved demand for the Co.'s lands next year.

The directors for the current year are:—President, E. T. Galt, Lethbridge, Alta; Vice-President, Col. Wodehouse, London, Eng.; W. Burdett Coutts, E. Crabb, E. Waterhouse, J. H. Dodgson, London, Eng.; W. M. Ramsay, H. Joseph, Montreal; J. Galt, Winnipeg. Mr. Dodgson succeeds Lord Farrer, who retired owing to pressure of other business; the other directors are the same as last year. G. Edwards, who was Secretary for many years, died since the previous meeting, and E. H. Wilson was appointed to succeed him.

REVENUE ACCOUNT YEAR ENDED JUNE 30, 1902.

RECEIPTS.			
Balance on following Accounts—	£	s.	d.
Railway and colliery	22,875	12	6
House rents and water privileges	516	16	11
Interest	58	16	5
	£23,451	5	10
EXPENDITURE.			
	£	s.	d.
General expenses in Canada—			
Salaries of officials, stationery, printing, stamps, telegrams, rent of telephones, lighting, and other sundry general expenses, including advertising.	4,556	19	7
Insurance	815	9	7
General law charges	488	0	10
		5,860	10
Expenditure in London—			
Agency, including office management and rent	500	0	0
General expenses, including advertising, printing, stationery, telegrams, postages, etc.,	123	14	10
Law charges	263	3	9
		886	18
Taxes	1,757	9	3
Trustees' remuneration	200	0	0
Directors' fees	900	0	0
Land grant expenses	286	17	5
Exchange on cheques and bank charges	705	12	0
Interest on prior lien debenture stock	2,633	1	6
Carried to balance sheet	10,220	17	1
	£23,451	5	10

Quebec Railway, Light and Power Co.

Following are extracts from the annual report of General Manager E. A. Evans for the year ended June 30, 1902:—On the citadel division four additional open cars have been purchased and put in operation, at an expense of \$7,600, giving this division 28 open and 32 closed cars. 4,192,799 passengers have been carried, an increase of 477,127. 1,460,285 transfers have been issued, an increase of 25,559. The car mileage has been 1,112,361, an increase of 22,911. Sweeper mileage has been 5,800, a decrease of 1,173. The operating expenses have been 11.35 cts. a car mile, as against 10.5 cts. in the previous year. This slight increase is almost entirely due to increase in wages of motormen and conductors. All cars have been kept in a thorough state of repair, painted and varnished when necessary, and the electrical equipment has been kept in a high state of efficiency. On the Montmorency division there were carried on the electric trains 465,391 passengers, and on the steam trains 183,606, total 649,087, an increase of 111,154 over the previous year. The steam passenger trains made 150,160 miles, 20,168 less than the previous year; the electric cars made 150,657 miles, 39,201 more than the previous year. The double track to Montmorency was completed on Aug. 25, 1901, and the service was very considerably improved. There were 99 organized pilgrimages to Ste. Anne de Beaupré, an increase of 19 over last year, and 53 excursions by electric trains, an increase of 25. The passenger traffic on Sundays has become so heavy that it is almost impossible to despatch trains rapidly enough from the Quebec yard. To overcome this difficulty, I suggest that permission be obtained from the city authorities to put a

switch on St. Andrew st. and utilize the track on Ramsay st.—one side of the station being used to start trains from, and the Ramsay st. track being used for arrivals. The receipts from freight, whilst showing a decrease, are very satisfactory, the decrease being entirely due to the construction of the Montmorency Cotton Co.'s mill the previous year. Special facilities are now being given at Petit Pré, Rivière des Chiens and Beaupré for the shipment of freight, such as cordwood, etc., which previously had been shipped by water; these facilities will, we anticipate, bring considerably more freight during the coming year, and it will be necessary if it is desired to increase the freight business, to purchase at least six more box cars. Miscellaneous receipts have been increased by the opening of parcel offices at several of the stations on the line, and by the arrangements made with the Quebec and Lake St. John Ry. allowing the Great Northern Ry. trains to pass over the St. Charles river bridge. The road bed, fences, cars and buildings have all been maintained in a satisfactory manner, and locomotives 3 and 5 have been thoroughly overhauled and put in a high state of efficiency. All the bridges have been thoroughly scraped and repainted. Four large new cars, each capable of seating 130 passengers, have been purchased during the year and added to this division. The elevator connecting the railway with the Co.'s Kent house property at Montmorency Falls, was completed in Feb. last, and has been exceedingly well patronized by the public, and although the months of Feb., Mar. and April are the three worst of the year, the elevator showed to June 30, an earning of 6¼% on the investment. This elevator is working to our entire satisfaction, and the only cause of regret is the fatal accident which happened; which, however, cannot be attributed to any fault in either the construction or means of operation.

ASSETS.

Road and equipment, real estate, buildings, etc., etc., including Kent house	\$5,245,884	61
Cash on hand	6,843	44
Power division—operating, including accounts due, stores for operating equipment	61,393	10
Haldimand house—operating account	6,090	01
Montmorency division—operating account, stores, etc.	\$25,652	38
Add—Repairs to engines, 1902-3 account	1,083	26
	26,135	84
Accounts receivable	5,074	18
Citadel division—operating account, represented by stores on hand	11,747	26
	\$5,363,168	44

LIABILITIES.

Capital stock	\$3,000,000	00
Less—treasury stock	500,000	00
	\$2,500,000	00
Bonds	\$2,500,000	00
Less—in treasury	19,000	00
	2,481,000	00
Bills payable (loan)	188,700	00
Accrued interest on bonds and loans	9,312	46
Accounts payable	85,003	43
Profit and loss account	99,152	55
	\$5,363,168	44

PROFIT AND LOSS ACCOUNT.

Balance carried forward from June 30, 1901. \$	69,961	00
Net earnings for year 1901-1902. \$164,283.25		
Less—Interest on bonds and loan 135,091.70		
	29,191	55
Balance to credit profit and loss account, June 30, 1902.	\$	99,152 55

Central Vermont Railway Report.

While the gross earnings of this line for the year ended June 30 were increased, the extra expense of conducting transportation, consequent on hauling a larger volume of low class tonnage than in the previous year, and competition in passenger traffic, caused a decrease in net earnings. Liberal expenditures were made in maintenance of way and equip-

ment, and there have been included in operating expenses unusual and extraordinary expenditures for new bridges, new tracks, ballasting, etc., to the extent of \$139,378.53, or 4.09% of the earnings. There was a surplus of \$142,645.94 from the operations of the year ended June 30, 1900, which was carried to an equipment renewal fund. The Co. has not facilities to construct any large amount of equipment, and the continued high prices charged by car companies have made it seem wise to defer extensive additions to the equipment for the time being, depending to a greater extent on that furnished by the parent company (the G.T.R.), and as expenditures in other directions have been liberally carried on, the amount before stated has been transferred to improvement account, to which has been debited \$83,830.69 for new bridges, and \$58,815.25 for new rails laid last year, and carried in suspense account. This disposition of the charges referred to takes care of all matters outstanding, leaving only the current expenses from month to month to be met from the revenues of the Co. The contracts which have been made for the renewal of bridges, which are expected to be in place by the end of this year, will put the road in condition for the operation of the heavier class of engines, and with the continuation of the present satisfactory earnings the results for the ensuing year are expected to be of a more favorable character than for the past one. Following is a comparative statement:—

	1901-2.	1900-1.
Receipts.....	\$3,406,431.86	\$4,262,133.85
Operating expenses.....	2,642,321.77	2,495,134.07
Balance.....	764,110.09	766,999.78
Taxes.....	103,808.91	104,702.14
Balance.....	660,301.18	662,297.64
Interest on securities held by Co.....	10,560.00	10,400.00
Total income.....	670,861.18	672,697.64
Interest on bonds and rental of leased lines.....	667,762.24	669,839.67
Net surplus.....	\$ 3,098.94	\$ 2,803.97

The Co. operates 531 miles, 36 of which, between Brattleboro and South Londonderry, are narrow gauge.

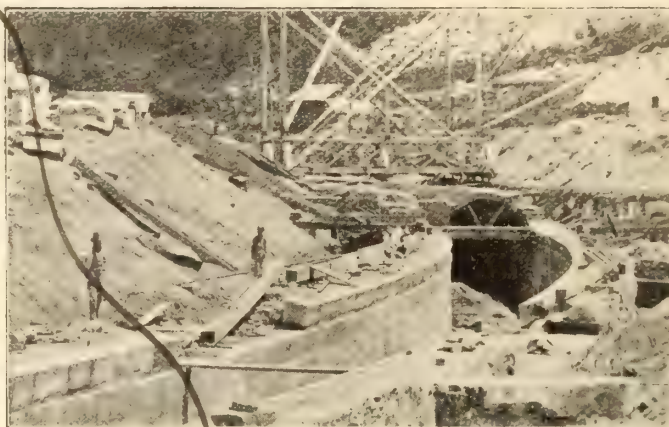
The percentage of expenses to earnings was 77.57%, against 76.58% in the preceding year. The percentage of improvements included in operating expenses, to the earnings, was 4.09%, against 6.10% in the preceding year. The percentage of ordinary expenses, to the earnings, was 73.48%, against 70.41% in the preceding year.

The number of tons carried one mile was 268,223,086, an increase of 19,326,292; the earnings per freight train mile were \$1.34, a decrease of 7c., and the earnings per ton per mile 0.85c., a decrease of 0.01c. The decrease in earnings per train and ton mile is accounted for by the fact that the Co. handled a considerably larger tonnage of low class traffic than the previous year. The number of passengers carried one mile, 41,814,796, shows a decrease of 779,889; the earnings per passenger train mile, 97c., an increase of 1c., but the earnings per passenger mile, 2.24c., are the same as previous year.

The decrease in passenger earnings is on account of Rutland Rd. competition, that Co. having discontinued handling through sleeping cars between Montreal and New York, in connection with the C.V.R. Also to decrease in through and local travel, on account of very unfavorable weather and no unusual attractions this year, while last year the travel to and from the Pan-American exposition was very heavy.

The annual meeting was held recently at St. Alban's, Vt. E. C. Smith having resigned the Presidency, C. M. Hays was elected President as well as Chairman. E. H. Fitzhugh was re-elected Vice-President and General Manager.

THOROLD CEMENT



G.T.R. TUNNEL UNDER THE NEW WELLAND CANAL, Between Merriton and Niagara Falls, Ont., built with **THOROLD CEMENT**.

Our **THOROLD CEMENT** will do such work as is shown in these views just as well as any **PORTLAND CEMENT**.



G.T.R. ROUNDHOUSE AT SARNIA, ONT. Capacity, 22 Locomotives. Foundations built with **THOROLD CEMENT** (250 barrels) in 1899.

THOROLD CEMENT is in price just about **ONE-HALF** the cost of **PORTLAND CEMENT**.

We can supply both **THOROLD** and **PORTLAND CEMENTS**; also **CRUSHED STONE** for **CONCRETE**.

ESTATE OF JOHN BATTLE,
(Successors to late John Battle)

THOROLD AND PORTLAND CEMENTS,
THOROLD, ONT.

WRITE US FOR PRICE AND FULL PARTICULARS.

Talks to Ticket Agents.

By F. B. Sankey, Pittsburg, Pa.

(Continued from previous issue.)

AMBITION.—Be ambitious. Caesar was ambitious, and most of us know what he accomplished during his life. No agent should be content to remain all his life at some small station, performing his duties mechanically, receiving the same remuneration year in and year out. Therefore, be ambitious. Look forward to promotion from the ranks. Never be satisfied until you reach the top rung of the ladder. Never let it be said that you have no life or energy in you. Every agent who applies himself has a chance to be advanced, and should always be on the alert looking forward to a larger and more remunerative agency, or to becoming a travelling, district, assistant general or general passenger agent. With each advancement comes increased opportunities and possibilities. Do not let increased responsibilities frighten you, but when they present themselves, master them. If you are not conversant with any particular subject, make that subject a study. This can be accomplished by carefully reading up on the subject, or by conversation with some one who is thoroughly posted. Do not be afraid to ask questions. This is a weakness some of us have which should be overcome. Something can be learned every day of our lives, and no one ever knew it all. It does not belittle you to ask questions, when you do not understand—it manifests the proper spirit. The lack of a good school or college education is no excuse for failure, as many of our prominent men have risen from the most obscure birth. Be not satisfied because you can perform your present duties faithfully and well, but always be on the alert to pick up something new, whether you have occasion to use it in your present position or not. There will come a time some day when it will be just what you want. When the eagle eye of your superior officer rests upon you as the man best fitted to fill some vacancy you can put it into practical use. "A faint heart ne'er won fair lady," neither will a man without ambition, and who makes no attempt to help himself be ferreted out for promotion. You may ask the question, "How do my superiors know my worth and how I perform my duties?" They know it in many ways. Your work speaks for itself. It is seen by the manner in which you send in your reports—the way your reports are gotten up, and the promptness with which they are sent in. They hear it from travelling representatives of the company and from the public generally. But, best of all, a constant increase in your office receipts from month to month makes it plain indeed. No X-ray or microscope is necessary to explain this fact. On the other hand, a decrease in your office receipts works in exactly the opposite direction. Endeavour to increase your office receipts at all times. Have you ever noticed other agents connected with your own road who have been promoted to higher positions, from smaller stations than yours? If so, have you ever wondered why they were promoted instead of yourself? There is a good reason for the selection of the other man. He has been making his work a study; he is a bright, energetic and persevering fellow and never loses an opportunity to make a good showing. Consequently his ability is recognized and he is rewarded for the faithful performance of his duties. A man who has ambition and is constantly aiming at something higher and better, is bound to reach a high standard of excellence. So can we all if we only embrace the opportunities. We cannot possess externals without exerting ourselves a little. If a thing is of value it is worth striving for. Anything which can be had for the asking certainly has no worth. It is the amount of work

performed which fixes the value of anything. Therefore, if we wish to possess a thing which is of value to us, and being of value, thus enhances our condition in life, we must necessarily broaden our intellectual capacity by hard study.

"The heights by great men reached and kept,
Were not attained by sudden flight;
But they while their companions slept,
Were toiling upward in the night."

(To be continued.)

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease
July \$3,246,620.51	\$2,070,900.25	\$1,175,711.25	\$70,844.32+
Aug. 3,554,184.56	2,101,283.11	1,362,901.45	57,269.36+
Sept. 3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+
Oct. 4,127,402.07	2,511,267.44	1,616,134.63	149,095.41+

\$14,579,688.56 \$9,014,186.72 \$5,565,501.84 \$344,231.87+

Approximate earnings for Nov., \$3,898,000 against \$3,506,000 for Nov., 1901.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Oct., \$259,205.85; net earnings, \$98,800.19, against \$231,159.56 gross and \$69,106.93 net for Oct., 1901. Net earnings for four months ended Oct. 31, \$426,615.95, against \$382,063.26 for same period, 1901. Approximate earnings for Nov. \$197,175, against \$204,895.

MINERAL RANGE RY.—Approximate earnings for Nov., \$48,916, against \$48,938 for Nov., 1901.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Oct., \$844,467.88; net earnings, \$519,151.85; against \$692,108.82 gross and \$423,224.22 net for Oct. 1901. Net earnings for four months ended Oct. 31, \$1,460,497.46, against \$1,200,535.75 for same period 1901. Approximate earnings for Nov. \$750,608, against \$671,731 for Nov., 1901.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.	
	1902-03	1901-02	1901-02
July . . .	155,344.93	49,089.96	\$562,876.50
Aug . . .	130,723.83	50,747.82	473,064.85
Sept . . .	145,535.83	60,060.46	542,811.11
Oct . . .	270,616.23	150,572.96	952,645.35
Nov . . .	146,687.83	151,922.89	598,788.99
	848,908.65	462,394.09	\$3,130,185.80
			\$1,496,094.17

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1902.	1901.	Increase.	Decrease.
Jan	\$2,278,978	\$2,242,117	\$36,861	....
Feb	2,018,926	2,005,341	13,585	....
Mar.	2,537,873	2,386,090	151,783	....
April	2,436,756	2,366,491	71,265	....
May	2,574,108	2,343,535	230,563	....
June	2,503,824	2,333,204	170,620	....
July	2,580,422	2,395,070	223,452	....
Aug.	2,710,303	2,645,340	73,963	....
Sept.	2,885,405	2,628,773	256,632	....
Oct.	2,956,358	2,740,910	215,448	....
Nov.	2,726,459	2,464,299	262,160	....

\$28,227,502 \$26,521,070 \$1,706,432

The following figures are issued from the London, Eng., office:

GRAND TRUNK RY. CO.

Revenue for Oct.:

	1902.	1901.	Increase.	Decrease.
Gross receipts	\$492,100	\$462,800	\$29,300	....
Working expenses	323,800	298,900	24,900	....
Net profit	\$168,300	\$163,900	\$4,400	....

Aggregate July 1 to Oct. 31:

	1902.	1901.	Increase.	Decrease.
Gross receipts	\$1,876,300	\$1,754,900	\$121,400	....
Working expenses	1,216,600	1,134,200	82,400	....
Net profit	\$659,700	\$620,700	\$39,000	....

GRAND TRUNK WESTERN RY.

Revenue for Oct.:

	1902.	1901.	Increase.	Decrease.
Gross receipts	\$91,800	\$79,300	\$12,500	....
Working expenses	78,500	66,100	12,400	....
Net profit	\$13,300	\$13,200	\$100	....

Aggregate from July 1 to Oct. 31:

	1902.	1901.	Increase.	Decrease.
Gross receipts	\$325,000	\$297,100	\$27,900	....
Working expenses	290,400	256,800	33,600	....
Net profit	\$34,600	\$40,300	....	\$5,700

DETROIT, GRAND HAVEN AND MILWAUKEE RY.

Revenue for Oct.:

	1902.	1901.	Increase.	Decrease.
Gross receipts	\$23,400	\$20,900	\$2,500	....
Working expenses	17,600	15,800	1,800	....
Net profit	\$5,800	\$5,100	\$700	....

Aggregate from July 1 to Oct. 31:

	1902.	1901.	Increase.	Decrease.
Gross receipts	\$88,600	\$80,600	\$8,000	....
Working expenses	61,400	58,000	3,400	....
Net profit	\$27,200	\$22,600	\$4,600	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Oct. 31:

	1902.	1901.	Increase.	Decrease.
Grand Trunk	\$1,876,770	\$1,752,076	\$124,694	....
G. T. Western	325,335	297,207	28,128	....
R., G. H. & M.	89,090	80,795	8,295	....
Total	\$2,291,195	\$2,130,078	\$161,117	....

January Birthdays.

Many happy returns of the day to

R. H. Bell, Travelling Freight and Passenger Agent, Canadian Northern Ry. at Montreal, born at Toronto, Jan. 13, 1865.

G. M. Bosworth, 4th Vice-President C.P.R. at Montreal, born at Ogdensburg, N.Y., Jan. 27, 1858.

G. McL. Brown, Superintendent of C.P.R. Dining, Sleeping and Parlor Cars and Hotels at Montreal, born at Hamilton, Ont., Jan. 29, 1865.

P. W. Brown, Purchasing Agent, Duluth, South Shore and Atlantic Ry., and Mineral Range Ry. at Marquette, Mich., born at Uxbridge, Worcester Co., Mass., Jan. 18, 1845.

N. S. Dunlop, Tax Commissioner C.P.R. at Montreal, born near Almonte, Ont., Jan. 17, 1861.

Sir Sandford Fleming, K.C.M.G., director C.P.R., promoter Pacific cable, born at Kirkcaldy, Scotland, Jan. 7, 1827.

T. A. Foque, Mechanical Superintendent Minneapolis, St. Paul and Sault Ste. Marie Ry. at Minneapolis, Minn., born at Boston, Mass., Jan. 14, 1866.

H. Q. Harris, General Manager Midland Ry. of Nova Scotia at Windsor, N.S., born at Devonport, Devonshire, Eng., Jan. 16, 1857.

W. Phillips, General Agent, Passenger and Freight Departments, Canadian Northern Ry. at Toronto, born at Toronto, Jan. 31, 1870.

J. Pullen, General Freight Agent G.T.R. at Montreal, born at Shepton Mallet, Somersetshire, Eng., Jan. 23, 1863.

C. Riatt, Master Mechanic Canadian Northern Ry. at Winnipeg, Man., born at Craigs, Montrose, Scotland, Jan., 1860.

C. Shields, Second Vice-President, and General Manager Dominion Coal Co. and Sydney and Louisburg Ry. at Glace Bay, N.S., born at Albany, N.Y., Jan. 1, 1856.

J. R. Steele, Freight Claims Auditor C.P.R. at Montreal, born at St. John's, Newfoundland, Jan. 14, 1856.

W. A. Trueman, Director, Secretary and Treasurer Albert Southern Ry. at Albert, N.B., born at Wallace, N.S., Jan. 29, 1849.

F. J. Watson, Division Freight Agent G.T.R. at Montreal, born at Toronto, Jan. 12, 1866.

G. H. Webster, General Tie Agent C.P.R. at Montreal, born at Creemore, Ont., Jan. 31, 1857.

The Duff Manufacturing Co., of Pittsburgh, Pa., has brought two suits in the U.S. Circuit Court for the Northern District of Illinois against Templeton, Kenly & Co., Ltd., of Chicago, for infringement of the Barrett patent, 455,993, granted July 14, 1891, and the other for infringement of the Barrett patent, 527,102, granted Oct. 9, 1894, for the manufacture of the lifting jacks lately placed upon the market by Templeton, Kenly & Co., known as the Simplex jack. The first of these patents sued under covers the automatic lowering mechanism known as the "yielding tripping plate" embodied in the Barrett jack made by the Duff Manufacturing Co. This patent has been sustained by the circuit and appellate courts on numerous occasions, and automatic lowering jacks of the same general type as the Simplex jack have been held to infringe the patent. In the second suit it is also claimed that the Simplex jack infringes the later Barrett patent, as well as the one which the courts have previously considered. Motion for preliminary injunction restraining the manufacture of the Simplex jack pending the suit under the earlier Barrett patent has also been made.

The L'Assomption Ry., which runs from L'Epiphanie to L'Assomption, Que., has, as usual, been closed for freight traffic for the winter.

An Unrecorded Property of Clay.

By H. J. Cambie, M. Can. Soc. C.E., Division Engineer C.P.R. Pacific Division.

Some years ago the writer found that ordinary clay, such as used in the manufacture of bricks, and commonly spoken of as plastic clay, would, if dried sufficiently to remove nearly all its moisture, lose its cohesive properties, and would, if water were afterwards applied to it in considerable quantities, become an almost liquid mud. On the other hand, clay which has not been so dried will not absorb any more water, and will lose only some of its outside particles in the washing. The writer has been unable to find any reference to this property of the material in question in the text books at his disposal. It came to his notice under the following circumstances:—

The main line of the C.P.R. runs for nearly 150 miles through a portion of British Columbia, situated between the eastern slope of the Cascade range, and the western slope of the Gold range. There is no regular rainfall over this area, and crops cannot be grown without irrigation. A good many thunderstorms do occur in the summer, but only over very limited areas, and the rainfall from them runs away quickly without soaking into the ground to more than a depth of one or two inches, and is dried off in a few hours by the rapid evaporation incident to the region. These characteristics are especially pronounced in the central part of the area mentioned. The farming lands are situated on benches, sometimes 200 ft. or more above the level of the railway, which runs along the valley of the Thompson river, and at no great distance from the bank. Hay is the most valuable crop raised, and is used to winter cattle, and, with sufficient irrigation, several crops of it can be obtained in each season. Water has, therefore, been lavished

upon the fields for nearly 40 years, and has, in the opinion of the writer, been the cause of numerous landslides, one of the greatest of which occurred in 1881, when about 100 acres slid forward for nearly a quarter of a mile, falling in that distance about 300 ft., and completely blocking the Thompson river for about three days by forming a dam 75 ft. or more in height. Many similar slides on a smaller scale have occurred since that date, but, generally, with slower movement and less disastrous effect. One of these is of large area, and includes a portion of the railway line; it has required constant watching, and has been a cause of much anxiety to the officials, because, although its forward progress has been slow, it has begun to move, year after year, at a date about three months after the beginning of the irrigation season, and has continued moving for about the same period of time. In 1886 the C.P.R. Co. took legal proceedings against the parties irrigating the fields above this slide, and it devolved upon the writer to furnish the legal advisers for the Co. with evidence to prove that the slide was due to the action of irrigation water. An investigation was made by the writer in consultation with Messrs. Stanton and Schuyler, who were employed by the Co., as experts in hydraulic engineering, and, particularly, in irrigation practice, and with H. J. Warsap, Manager of the C.P.R. Portland cement works at Vancouver, an expert in clays. At the slides were found beds of clay so exceedingly dry and hard as to have the appearance of soft sand stone, and still retaining the marks of picks in the slopes of railway cuttings, where dressed many years ago. When a block of this dry indurated clay was placed in a soup plate and water dropped upon it, the clay absorbed 50% of its own weight without any change of form or other visible effect, but when it had absorbed about 60% of water, its structure completely col-

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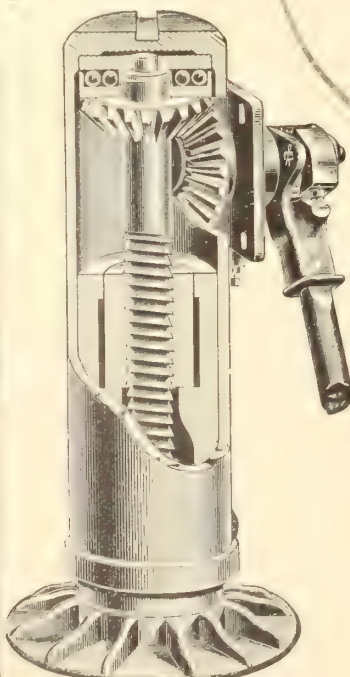
reduce the friction and increase the power of the Jack.

THE GEARS

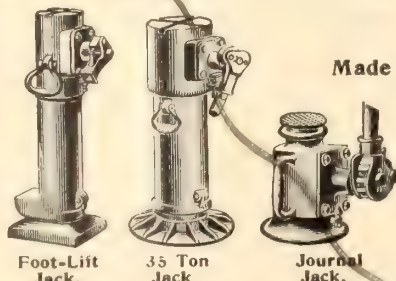
are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

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runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.



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lapsed, and it became as fluid as water. This was considered by us as conclusive evidence that the irrigation water which had been poured for weeks and months on these beds of clay had been the cause of the slide, but, in court, this argument was met by a demand from the opposing counsel to be told why the bluffs of this material, which were washed at their base by the river, did not disintegrate and slide. Several ingenious theories were offered to account for this, but were not convincing, and the writer now thinks it was because these bluffs had never been dried out below high water mark, and the material in them, therefore, did not possess the property of soaking up water and of finally collapsing. In all probability the jury was influenced by the evidence that no slides had occurred before the commencement of irrigation, and that there was irrigated land in the rear of each slide.

A year or more after the trial, the writer, while experimenting with Mr. Warsap on some clay, which had been dried for other purposes, found that it gave the very same results as the dry clay from the interior of the Province. This led to experiments with other clay, and it was found that they all lost their cohesive properties when the moisture was removed. It is probable that this property of clay has been the cause of many of the landslides which occurred in 1902 in the valley of the Oldman and Belly rivers, between Medicine Hat and the Crow's Nest Pass, for there has been an exceedingly heavy rainfall over these valleys during the year for the first time since they have become known.

[This paper was read before the Canadian Society of Civil Engineers recently.]

Lake Erie and Detroit River Ry.

As stated in our last issue, F. H. Walker, President, announced Oct. 28 that a portion of the stock of the L.E. and D.R. Ry. had been acquired by the Pere Marquette Rd., and we are informed that it has since acquired most if not all, of the stock of the line, which has been taken over. The line passes to its new owners, it is said, at cost price, without any concessions, and the local net earnings from the road are expected to be more than sufficient to pay any fixed charges called for by the absorption of this road, not to speak of the general profit to the Pere Marquette system by reason of the 128 mile longer haul on traffic estimated at 1,400,000 tons a year. There will be several changes in the directorate as a result. The L.E. and D.R. Ry. proper extends from Walkerville to St. Thomas, Ont., 128 miles. It has absorbed the Erie and Huron Ry. from Rondeau, on Lake Erie, to Sarnia, 71.50 miles, making a total mileage owned of 199.50. The London and Port Stanley Ry. from London to Port Stanley, 24 miles, is operated under a lease. The L.E. and D.R.R. is to be extended from St. Thomas to the Niagara river, and an entrance obtained into Buffalo. (Dec. 1902, pg. 409.)

A syndicate in which N. Thayer, F. H. Prince, of Boston, Mass.; T. F. Ryan and M. T. Cox, of New York, who are now interested in the Pere Marquette Rd., are members, has purchased, through the Old Colony Trust Co., 72,717 shares of the stock of the P.M. Rd., and 20,000 shares privately, and members are depositing 28,000 additional shares, which gives the syndicate a majority of all outstanding stocks and the control of the property. The ownership of the L.E. and D.R. Ry. passes to the syndicate with its purchase of the P.M. Rd. stock. In addition to extending the L.E. and D.R. Ry. to Buffalo, N.Y., the new owners propose to extend the P.M. Rd. from New Buffalo, Mich., to Chicago, about 67 miles.

The Pere Marquette Rd. Co. was organized Nov. 1, 1899, for the purpose of consolidating the Flint and Pere Marquette Rd., the Detroit, Grand Rapids and Western Rd., and the Chicago and West Michigan Rd. companies under the terms of a readjustment agreement dated May 20, 1899. The properties of these several companies, and of the Chicago and North Michigan Rd., have been acquired by purchase under the laws of Michigan, subject to the mortgages and other liens existing on them at the time of the purchase, the P.M. Rd. Co. issuing in payment for such properties all of its common and preferred stock. The new Company began operating on Jan. 1, 1900. The Grand Rapids, Belding and Saginaw Rd., built in 1899, is leased by the P.M. Rd., and it also leased the Saginaw Tuscola and Huron Rd. for 999 years from Feb. 1, 1900, guaranteeing principal and interest on \$1,000,000 S.T. and H. 1st mortgage 4% gold bonds. The Company operates 1,746.89 miles of line, of which 199.26 miles are leased; it also operates jointly with other companies 18.97 miles of leased lines, and owns jointly with other companies .26 miles, and owns 1.88 miles of track which is leased to the Michigan Central Rd. The P.M. Rd.



system is confined to the State of Michigan, with the exception of a few miles into Ohio, at Alexis, and 38 miles in Indiana, from New Buffalo, its most easterly point, to La Crosse. The terminal points where connection can be secured with the Canadian lines are at Detroit and Port Huron, while the important terminal points on Lake Michigan are Ottawa Beach, Muskegon, and Ludington. From Ottawa Beach a steamship line is operated to Milwaukee, Wis., and to the same point car ferries are operated from Muskegon and Ludington, and a car ferry service is also operated between Ludington and Manitowoc, Wis. The gross earnings for 1900 were \$8,296,111.67, and the working expenses \$6,330,592.32, leaving net earnings of \$1,965,519.35. Out of this interest charges amounting to \$1,319,329.79 were paid, \$25,397.37 spent on improvements, and \$480,000 paid by way of dividend of the 4% preferred stock, leaving a balance to carry forward of \$140,792.19.

The Spokane Falls and Northern Ry. announces a reduction in the passenger rates over its line from 5c. to 3c. a mile, to take effect early this year. The Co. operates the Red Mountain, the Nelson and Fort Shepherd, and the Vancouver, Victoria and Eastern railways in Canada.

C.P.R. Toronto-Sudbury Line.

Following the announcement of the G.T.R.'s intention to build a line to the Pacific coast came the report that the C.P.R. will build from Kleinburg to Sudbury, Ont., so as to avoid the use of the G.T.R. line from Toronto to North Bay. Such a line has long been contemplated by the C.P.R., and its route has been shown on the Co.'s maps for a number of years as a projected line. Surveys for it were made in 1888, and were referred to in the annual report for that year. About that time the G.T.R. acquired the Northern and the Northwestern railways, and an arrangement was effected between the C.P.R. and G.T.R. in regard to the former's northwest traffic going over the G.T.R. between Toronto and North Bay. In 1898, when the passenger rate war occurred between the C.P.R. and the G.T.R. companies, further surveys were made under H. D. Lumsden, C.E., from Kleinburg, on the Co.'s Owen Sound section, 21 miles from Toronto, to the main transcontinental line at a point between Romford and Sudbury Jct., about 6¼ miles east of the latter place, the whole distance from Kleinburg to the main line being 226 miles, making a distance of 253 miles from Toronto to Sudbury, as against 306 by the G.T.R. route via North Bay.

From Kleinburg the surveyed line runs almost due north, passing about 1½ miles west of Lloydtown, thence a little east of north to near Allandale, passing about ½ mile west of Bondhead, and about 2 miles east of Cookstown. At Allandale it crosses the G.T.R.'s Hamilton and Northwestern branch by an overhead bridge, and the Collingwood branch on the level. After passing through Barrie the line runs almost due north to Midhurst and Craighurst, then northeast, passing Coldwater, and continuing almost in a direct line to the crossing of the Severn river, 9 miles up stream from Port Severn. From this crossing it continues a little east of north to Bala, the outlet of Muskoka lake, where it crosses the south branch below and the north branch above the falls. From Bala the course is a little west of north to Parry Sound, touching Lake Joseph at Hatherley's bay, and crossing the Canada Atlantic Ry. by an overhead bridge about 3 miles from that Co.'s Rose Point Station, running through the town of Parry Sound, and crossing the Seguin river at the falls near the grist mill where the electric light plant is located. From Parry Sound the line goes a little west of north passing through the townships of McDougall, Carling, Shawanaga, Harrison, Wallbridge and Mowat, reaching the crossing of French river on an Indian reserve near Cantin's island. The two branches of French river are crossed about 2 miles apart, and the line continues generally in a northwesterly direction to the connecting point near Sudbury, crossing the Wahnapiatae river about 12 miles below Wahnapiatae station on the main line.

An excellent line was obtained with maximum gradients ascending northerly of 1%. Coming south the maximum is ¾ of a foot per 100. The maximum curvature is 6 degrees, or a radius of 955.37, but these are only at a few exceptional places in the rocky country north of the Severn. There is no rock work between Kleinburg and the centre of the township of Matchedash. From there to the northern terminus a considerable amount is met with. For the length of the line the bridging is not heavy. The heaviest bridge will be just north of Kleinburg, where the Humber valley, 1,200 ft. wide and 110 deep, has to be crossed. The only other streams of importance to be crossed are the Severn, with a span of 150 ft.; the Musquash at Bala, 1 span of 100 ft. and 1 of 150 ft.; the Canada Atlantic Ry. and adjoining stream by 2 spans of 60 ft.; the Seguin river at Parry Sound, 2 spans of 100 ft.; Shawnaga river, 1 span of

100 ft.; 2 branches of the Nosquetiwan river, spans of 100 ft. over each branch; Magneta-
wan river, 1 span of 100 ft.; Key river, 1 span
100 ft.; French river, 2 branches, 1 span of
150 ft.; 1 of 250 ft.; Wahnapiatae river, 1 span
of 100 ft. The line goes through the heart of
the Muskoka tourist district, tapping both
Muskoka lake and Lake Joseph, and it would
shorten the time between Toronto and Lake
Joseph by several hours.

The C.P.R. has no charter for a line from
Toronto to Sudbury, but it would appear that
it could be built under the powers conferred
by the Co.'s original act of 1881, which gave
the Co. the right, from time to time, to lay
out, equip, maintain and operate branch lines
of railway from any point or points along its
main line to any point or points within the
Dominion. In 1895 W. Mackenzie, H. D.
Lumsden, C.E., G. A. Cox, F. Nichols and
D. D. Mann obtained a Dominion charter for
the James' Bay Ry. Co., with power to build
a line from Parry Sound to Doke's Indian
reserve, thence to the easterly line of Lake
Wahnapiatae, and to the mouth of Moose
River, James' Bay. In 1897 another act was
passed, empowering the Co. to extend its line

from Parry Sound to Toronto, it being pro-
vided that the railway from Parry Sound to
James' Bay, and the extension from Parry
Sound to Toronto should be commenced with-
in 2 years therefrom, and 15% of the capital
stock of \$1,000,000 expended thereon. This
charter is controlled by Mackenzie, Mann &
Co., and work has been started by building
about four miles between the Canada Atlantic
Ry. and Parry Sound.

No official announcement has been made
by Sir Thos. Shaughnessy as to the C.P.R.
Co.'s intentions. Mr. Lumsden has, it is said,
been looking over the ground again lately
and plans are reported to have been deposited
with the Dominion Department of Railways
and with the Provincial Secretary of Ontario,
also in the registry office of the County of
Simcoe, but it is not likely that any further
move will be made until the G.T.R. shows its
hand a little more. The C.P.R. will probably
wait and see what G.T.R. legislation may be
secured at the next session of the Dominion
Parliament. The impression is that if the
G.T.R. builds from Gravenhurst or North
Bay, westward, the C.P.R. will build from
Kleinburg to Sudbury, to secure a shorter

route between Toronto and the west than it
now has, a share of the Muskoka tourist
traffic, and better facilities for handling the
largely increasing business of the Sudbury
district.

Since the above was put in type we have
been informed that plans have not been de-
posited with the Provincial Secretary of
Ontario.

The pension fund for the employes of the
C.P.R., for which an appropriation of \$250,-
000 was made at the annual meeting in 1901,
will be inaugurated Jan. 1, 1903. The admin-
istration of the fund will be placed in the
hands of an executive body with Sir Thomas
Shaughnessy at its head. The officials and
employes will not be required to contribute
directly out of their salaries or wages to the
fund, as is the case with the pension fund
scheme on the Pennsylvania Rd., the plan
adopted being based on the lines of that fol-
lowed by the Illinois Central Rd. The
details of the plan are being worked out
by W. R. Baker, Assistant to the 2nd Vice-
President.

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TRANSPORTATION APPOINTMENTS.

Algoma Central and Hudson's Bay Ry.—D. H. Campbell, heretofore Chief Train Dispatcher and Car Agent of the Kingston and Pembroke Ry., has been appointed Relieving Dispatcher of the A.C. and H.B. Ry., and to perform various other duties.

Baltimore and Ohio Rd.—E. T. Horn, formerly Assistant to the Manager of the Intercolonial Ry., has been appointed Assistant to the General Superintendent of the B. and O. Rd. Office, Pittsburgh, Pa. He will have special supervision over the design of and methods in effect at all freight and passenger yards and terminals.

Canadian Pacific Ry.—W. R. MacInnes, heretofore Assistant Freight Traffic Manager of the Western Lines at Winnipeg, has been appointed Freight Traffic Manager. Office at Montreal.

F. W. Peters, heretofore General Freight Agent, Pacific division, has been appointed Assistant Freight Traffic Manager, Western lines. Office, Winnipeg.

B. W. Greer, heretofore Assistant General Freight Agent, Pacific division, has been appointed General Freight Agent, Pacific division. Office, Vancouver.

W. M. Kirkpatrick, heretofore chief clerk, Fourth Vice-President's office, Montreal, has been appointed Assistant General Freight Agent, Pacific division. Office, Vancouver.

In connection with the appointment of F. Lee as Signal Engineer a circular has been issued stating that in the execution of new work, general and special repairs, and maintenance of all interlocking, switch, train order, and yard limit signals, signalmen, repairmen, bridge and building masters, will act under the direction of their superintendents, who will receive and execute the instructions of the Signal Engineer in such matters.

F. S. Darling, heretofore Division Engineer of the Northern Pacific Rd. at St. Paul, Minn., has been appointed Division Engineer of Construction of the C.P.R. Office at Montreal.

J. McLellan, heretofore Yard Agent at Winnipeg, has been appointed Trainmaster district 20. Office at Winnipeg.

A. Hutchinson has been appointed Yard Agent at Winnipeg.

J. S. Dennis, until recently Chief Engineer of the Northwest Public Works Department, has been appointed in charge of the Co.'s irrigation surveys and works, and will also make surveys of the Co.'s lands in British Columbia. Office at Calgary, Alta.

W. H. Gardiner, heretofore chief clerk to the Assistant General Freight Agent at Vancouver, has been appointed General Agent of the Freight Department at Seattle, Wash., vice J. Armstrong, resigned to become General Agent of the Freight Department of the Wisconsin Central Rd. at Seattle.

J. Halstead, heretofore chief clerk in the freight department at Winnipeg, and Travelling Freight Agent in Manitoba, has been appointed chief clerk to the Assistant General Freight Agent at Vancouver, vice W. H. Gardiner promoted.

Press reports recently stated that a change had been made in the Co.'s ticket agency at Charlottetown, P.E.I. We are advised that this is incorrect. W. C. Kennedy has been ill for a couple of months, but is improving and is still agent.

Chicago, Rock Island and Pacific Ry.—A. C. Turpin has been appointed Travelling Passenger Agent, vice A. Jackson, transferred. Office at 178 St. James St., Montreal.

Duluth, South Shore and Atlantic Rd.—W. F. Fitch, Second Vice-President and General Manager, has been elected President, vice S. Thomas, of New York, resigned. Gen. Thomas was formerly a director of the C.P.R., but was not re-elected at the last annual meeting.

Grand Trunk Ry.—C. Dallas having resigned, J. Henry has been appointed Roadmaster district 24 and those parts of districts 22 and 23, between Palmerston and Durham, and Palmerston and Kincardine. Office, Wingham.

C. O'Dell has been appointed Roadmaster on lines between Sarnia Tunnel and London, Komoka and Glencoe, Glencoe and Kingscourt and the Petrolia branch, vice J. Henry, transferred. Office, Sarnia Tunnel.

C. E. Crowley, formerly Assistant Resident Engineer at Toronto, has been appointed Roadmaster of district 16, and that part of district 15 between east semaphore York and mileage 3, west of North Parkdale, vice C. O'Dell, transferred. Office, Toronto.

G. Black has been appointed Road Foreman of Engines on districts 15, 20, 21, 22 and 23, vice W. Holmes, resigned to accept service with another company.

A. B. Atwater has been appointed Assistant to the President (C. M. Hays), of the G.T. Western Ry., Detroit, Grand Haven & Milwaukee Ry., Toledo, Saginaw & Muskegon Ry., Michigan Air Line Ry., and Chicago, Detroit & Canada G.T. Jct. Ry. Office at Detroit, Mich. He will represent Mr. Hays locally in connection with the lines above named, and will perform such duties as may be assigned to him from time to time.

The following agents have been installed: Lisgar, Que., J. A. Asselin; Lucan, Ont., A. Smith; Evergreen Park, Ill., I. F. Thomas; Vernon, Mich., C. B. Haynes; Owosso Jct., Mich., G. A. Needham; Harvard, Mich., H. E. Austin; Mount Clemens, Mich., J. C. Haynes; Fraser, Mich., H. H. Earle; Lakeland, Mich., W. W. Sigsby; Munith, Mich., F. D. Burgess.

Great Northern Ry. of Canada.—G. W. Mitchell has been appointed Purchasing Agent vice J. A. Nicole, resigned.

Guelph Street Ry.—William Brown, heretofore electrical foreman of the Metropolitan Ry., Toronto, has been appointed Superintendent and Manager of the Guelph Street Ry.

Intercolonial Ry.—Press reports say that A. W. Grass, who has been on the Cape Breton division since 1896 as Trackmaster of the maintenance department, has been retired, and that S. Fraser, Trackmaster at Sydney, has been given charge of both the maintenance and construction departments. We are advised that Mr. Grass was employed as Assistant Trackmaster, and that the work of construction in Cape Breton at which he was employed having been completed, Mr. Fraser has been given charge of the track between Point Tupper and the Sydneys.

The office of Master Mechanic at Stellarton has been abolished. N. L. Rand's jurisdiction as Master Mechanic will include the line from Oxford Jct. to Sydney, North Sydney and Truro.

B. C. Gesner, who has been Master Mechanic at Stellarton since October, 1901, has been reappointed Air Brake Inspector with office at Moncton, in place of W. C. Hunter.

Kettle Valley Lines.—W. A. Stratton is in charge of the Co.'s operations at Grand Forks, B.C. No appointment of a General Manager has been made to succeed T. N. Holland.

Kingston and Pembroke Ry.—J. H. Shibley is reported to have been appointed Chief Train Dispatcher and Car Agent, succeeding D. H. Campbell, who has gone to the Algoma Central and Hudson's Bay Ry.

Lake Erie and Detroit River Ry.—A. Patriarche, Traffic Manager of the Pere Marquette Rd., has also been appointed General Traffic Manager of the L.E. and D.R. Ry. Office, Detroit, Mich.

T. Marshall, heretofore General Freight and Passenger Agent, has been appointed

Assistant General Freight Agent, reporting to the General Traffic Manager. Office, Walkerville, Ont.

H. F. Moeller, General Passenger Agent of the Pere Marquette Road, has had his jurisdiction extended over the L.E. and D.R. Ry. Office, Detroit, Mich.

Lehigh Valley Rd.—E. B. Thomas, heretofore Chairman of the Lehigh Valley Rd. board, has also been elected President, vice A. Walter, resigned. Mr. Thomas is also Chairman of the Erie Rd. board. J. A. Middleton, Second Vice-President and Secretary of the Erie Rd., has also been appointed Assistant to the President of the Lehigh Valley Rd.

Michigan Central Rd.—S. P. Hutchinson, heretofore Superintendent of the Pittsburgh division of the Baltimore and Ohio Rd., has been appointed Assistant General Superintendent of the M.C.R., vice W. S. Kinnear, appointed Chief Engineer.

R. O. St. John is reported to have been appointed Assistant to the Chief Engineer at Detroit.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—C. F. Seymour is reported to have been appointed Assistant Superintendent at Enderlin, N.D.

Pennsylvania Rd.—C. G. Cadwallader, heretofore Assistant Passenger Agent of the Philadelphia Rd. at Broad St. station, Philadelphia, has been appointed Passenger Agent in charge of the ticket offices there, vice S. H. Wallace, retired. Captain Cadwallader is Secretary of the International Association of Ticket Agents, and took a prominent part in entertaining the members of the Canadian Ticket Agents' Association during their recent visit to Philadelphia.

How a Business was Ruined.

According to Col. A. A. Pope, who has been appointed receiver of the American Bicycle Co., the downfall of that concern and the death of the bicycle business generally is due to not advertising. He says:

"The cessation of advertising killed the bicycle business, and the way to revive it is to resume that same important matter. I thoroughly believe in it. You can see how I feel in the matter when I tell you that I spent \$500,000 in one year in that sort of publicity, and that it is my idea for the future—to advertise."

M. Beatty & Sons, Welland, Ont., report the following as among some of the large orders they have filled recently: Hoisting engine to J. O. Labelle, Terrebonne, Que.; set ditcher machinery, Department Public Works, Strathcona, Alta.; 3 hoisting engines to Holme Miller & Co., Dawson, Yukon; hoisting engine to Alex. Jeffrey & Co., Montreal; 2 hoisting engines to J. & R. Miller, Depot Harbor, Ont.; 3 stone derrick swingers to J. O'Toole, Peterboro, Ont.; five ton revolving and travelling derrick to New Ontario Dock and Coal Co., Sault Ste. Marie, Ont.; special derrick car engine to Dominion Bridge Co., Montreal; hoisting engine to Cleveland-Sarnia Saw Mills Co., Nairn Centre, Ont.; 4 hoisting engines, 3 swingers, 1-6 in. direct connected centrifugal pump to North Shore Power, Railway & Navigation Co., Quebec, for use on its water power at Seven Islands, Que.

A working agreement has been entered into between the C.P.R. and the Shore Line Ry. of New Brunswick, by which the C.P.R. will use the S. L. Ry. yards at Carleton, St. John, and the S. L. Ry. will use certain portions of the C.P.R. lines in reaching its terminal.

Mainly About People.

C. C. Chipman, Commissioner of the Hudson's Bay Co., is in England on official business.

Sir T. G. Shaughnessy has given \$500 to the School of Industry at St. John's, Nfld., conducted by Rev. Mr. Slattery.

John Foy, General Manager of the Niagara Navigation Co., returned to Toronto Dec. 12 from West Baden Springs, Indiana.

W. K. Reynolds, who was Press and Advertising Agent of the Intercolonial Ry. in 1899-1900, died at St. John, N.B., Dec. 2.

C. M. Hays, Second Vice-President and General Manager G.T.R., has been elected a director of the Merchants Bank of Canada.

J. Goodfellow, Trainmaster and Chief Dispatcher C.P.R., Vancouver, was recently married at New Westminster, B.C., to Mrs. M. A. Fraser.

Mrs. E. W. Rathbun, wife of the President of the Bay of Quinte Ry., sailed from New York early in Dec., to spend the winter in Europe.

Miss A. M. Callaway, daughter of S. R. Callaway, President of the American Locomotive Co., was married to J. F. Smith recently in New York.

George Healy, baggage master at Toronto Union Station, was presented with a silver tea service by the station employes, Dec. 6, on the occasion of his wedding.

Sir Wm. Van Horne returned to Montreal Dec. 10 from Cuba, where he had been looking after the inauguration of passenger train service on the Cuba Co.'s railway.

J. D. Riddell, General Agent for Ontario for a number of steamship lines represented in Canada by the Robert Reford Co., Montreal, died in Stratford, Ont., recently.

J. A. Couture, C.P.R. station agent and agent Dominion Express Co. at St. Scholastique, Que., is alleged to have absconded with \$1,200 belonging to the latter company.

Mrs. T. Tait, wife of T. Tait, Manager of Transportation, C.P.R., will be one of the assistants at the great military bazaar to be held at the Montreal Armouries on an early date.

W. Petersen, President of the Canadian Lake and Ocean Navigation Co., who has been in Toronto since early last summer, sailed for England Dec. 22. He expects to return to Canada in May.

J. A. Kilpatrick, for many years Superintendent of the St. Thomas, Ont., Car Wheel Co., has been appointed Manager, vice A. E. Domville, who has been appointed Manager of works in Buffalo, N.Y.

James Ross, Vice-President Montreal Street Ry., who erected and equipped a hospital at Lindsay, Ont., in memory of his parents, recently handed it over to the Warden of the county of Victoria in trust.

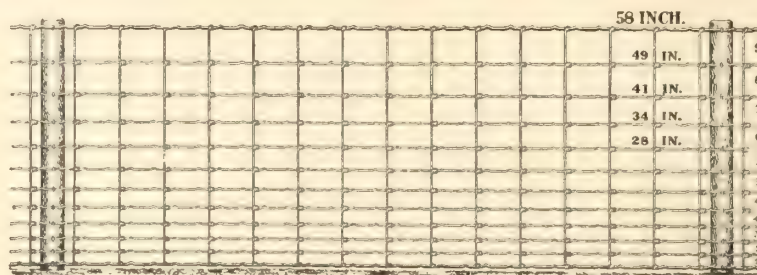
W. R. Smith, Assistant Superintendent of the Kalispell, Mont., division of the Great Northern Ry., U.S., was born at Toronto in 1867, and was in the C.P.R. and G.T.R. service prior to joining the G.N.R. in 1897.

Mrs. C. R. Hosmer, wife of C. R. Hosmer, of the C.P.R. directorate and President of the Ogilvie Flour Mills Co., gave a luncheon in Montreal, Dec. 3, in honor of Lady Eileen Elliott, daughter of the Governor-General.

Senator Thomas McKay, of Truro, N.S., commenced life as spare fireman on the old Nova Scotia Ry., at Truro, in 1859, and had been for three years freight agent at that point when he left railway service in the sixties.

W. J. Sloan, an employe of the B.C. Electric Ry. and Light Co. at New Westminster, B.C., and acting as agent for the Great Nor-

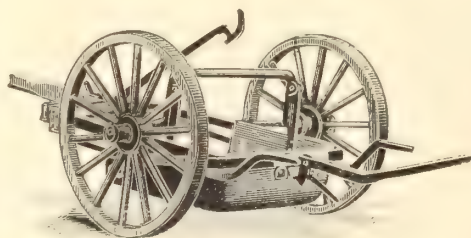
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STEEL STEAM BALLAST
RAILS. SHOVELS. CARS.

BARRETT TRACK JACKS.
TRACK TOOLS.

CANADIAN SALES AGENT:

JAMES COOPER, - Montreal.

thern Express Co., was recently arrested on a charge of forgery in connection with the express portion of his duties.

W. Campbell, who has been private secretary in Montreal to C. R. Hosmer for many years, will leave there early in Jan. for Winnipeg, having been appointed to a good position in the Ogilvie Flour Mills Co.'s service.

A. J. McLellan, who died at Victoria, B.C., Dec. 1, was one of the contractors on the Pacific division of the C.P.R., and subsequently constructed portions of the Esquimalt and Nanaimo Ry., and the Lenora-Mount Sicker Ry.

Col. J. McNaught, Vice-President, Great Northern Ry. of Canada, is at the head of a syndicate, which press reports state, proposes to construct a railway from Barrios on the Caribbean sea, to San Jose, on the Pacific coast, both in Guatemala.

R. Enman, who was Secretary to J. E. Muhlfield, when the latter was Superintendent of Machinery and Rolling Stock on the Intercolonial Ry., has left Moncton for Baltimore, Md., to take a similar position with Mr. Muhlfield on the Baltimore and Ohio Rd.

J. S. Mackenzie, Managing Director of the Winnipeg Electric Power and Light Co., was presented with a gold chain and locket by the Controller's staff, and some other officials of the Toronto Ry. Co., on his leaving Toronto to take up the duties of his new position.

D. B. Hanna, Third Vice-President Canadian Northern Ry., was presented by the staff of the office at Winnipeg with a Crown Derby dinner set on the occasion of his removal to Toronto. Mrs. Hanna and family will remain in Winnipeg until the spring.

A. R. Greig, Chief Draughtsman of the Canada Atlantic Ry., Ottawa, was presented with a gold watch, chain and locket by a number of the employees of the company on his removal to Winnipeg to take a similar position with the Canadian Northern Ry.

F. L. Wanklyn, General Manager Montreal Street Ry. Co., has been elected President of the Quebec Association for the Protection of Fish and Game. C. E. E. Ussher, General Passenger Agent Eastern lines C.P.R., has been elected a member of the committee.

J. U. Shepherd, who is said to have been Purchasing Agent for Mackenzie, Mann & Co., at Winnipeg, Man., has been sued by Miss A. A. Armit, of Fort Frances, Ont., in the Minneapolis, Minn., courts, for \$10,000 damages for breach of promise of marriage.

A. G. Ardagh, who has been appointed Resident Engineer of C.P.R. districts 8 and 9 at Toronto, entered railway service in that Co.'s Divisional Engineer's office at Toronto, in a general capacity, Nov. 12, 1900, and was appointed Resident Engineer Oct. 1, 1902.

J. L. Dixon, on leaving London, Ont., to become manager of the Bell Telephone Co.'s Brantford office, was presented with a gold watch and an address by the staff of the London office, and with a set of Dickens' works by the workers of the First Congregational Church, of which he was Treasurer.

Frank Lee, recently appointed Signal Engineer of the C.P.R. at Montreal, graduated from Sheffield-Scientific in 1894, and was employed for two years in engineering work for the British government colonial railways in Trinidad. He resigned from the engineering department of the Chicago and Northwestern Ry., after six years' service, to enter the C.P.R. service.

M. J. Haney, Miss Alice Haney and Miss Tandy, who have been residing at Charlottetown, P.E.I., where Mr. Haney is building the bridge over the Hillsboro' river, since June, returned to Toronto early in Dec. Mr. and Mrs. Haney and two daughters left

Toronto Dec. 22 for a trip round the world, expecting to return to Toronto in May or June next.

At the annual convention of the Brotherhood of Railway Trackmen held in St. Louis, Mo., which closed Dec. 9, the following Canadians were elected to office: First Vice-President, A. B. Love, of Kingston, Ont.; Secretary-Treasurer, C. Boyle, Merrickville, Ont.; R. Ferguson, Port Arthur, Ont., was placed on the Executive Committee.

D. G. Ross, formerly C.P.R. Superintendent at Fort William, Ont., who has been in ill health for some time, expected to be able to resume work last fall, but not having recovered as rapidly as he hoped to do, he has obtained further leave of absence, and has gone to California for the winter. If his health is fully re-established he hopes to resume active service in the spring.

E. T. Horn, formerly of the Intercolonial Ry., who has recently been appointed Assistant to the General Superintendent of the Baltimore and Ohio at Pittsburgh, has prepared plans for new yards to be built at Connellsville, Pa. The yards will have a capacity of 2,000 cars, and will contain a sufficient number of tracks to permit the movement of 12 freight trains at one time, whereas only two movements are possible in the present yards.

H. H. Adams, who has been appointed Assistant Superintendent of the Canadian division of the Michigan Central Rd., with office at St. Thomas, Ont., was born at Detroit, Mich., Aug. 13, 1876, and entered railway service July, 1899, as draughtsman on the Michigan Central. After serving in various capacities in the engineering department he was appointed Assistant Chief Engineer, Mar., 1902, and secretary to the General Superintendent, Nov., 1902.

Geo. Collins, heretofore General Superintendent and Secretary of the Central Ontario Ry., who was recently appointed by the Court as Receiver and Manager, was born July 20, 1860, and started his railway service with the Central Ontario in 1882 as a clerk on construction, and has been continuously with this company passing through the various positions of Agent, Train Dispatcher, Secretary and Treasurer, General Superintendent and Secretary, finally becoming the Receiver and Manager.

B. C. Gesner, who has been appointed Air Brake Inspector on the I.C.R., at St. Lartion, was born at Cornwallis, N.S., April 23, 1859. He entered railway service as messenger in the mechanical department of the I.C.R., Jan. 23, 1877, since which his record has been: fireman, same road, Mar., 1878, to Oct., 1882; locomotive driver, same road; Oct. 1882, to Sept., 1898; General Air Brake Inspector, same road, Sept., 1898, to Oct. 31, 1901; Master Mechanic at St. Lartion, same road, Oct. 31, 1901, to Dec. 16, 1902.

E. N. Bender, General Purchasing Agent, C.P.R., whose portrait appears on the first page of this issue, was born in Quebec, Oct. 3, 1858, and entered railway service in the stores department of the Montreal, Ottawa and Occidental Ry., Hochelaga stores, June 1, 1880 as secretary to the General Store Keeper, since which he has been consecutively: Dec., 1880, to Jan., 1881, Assistant Accountant, stores department same road; Jan., 1881, to June, 1882, Accountant stores department same road; June, 1882, to Sept. 1, 1889, Chief Clerk purchasing department C.P.R., at Montreal; Sept. 1, 1889, to Feb. 6, 1902, Assistant General Purchasing Agent; Feb. 6, 1902, to date General Purchasing Agent.

A. B. Atwater, who has been appointed assistant to President C. M. Hays for the lines of the G.T.R. system west of the Detroit and St. Clair rivers, was born in Sheffield, Ohio, Nov., 1845, and entered railway service 1864 as telegraph operator Cleveland and Erie Ry.,

since which he has been consecutively: Oct., 1865, to June, 1885, in engineering service Jamestown division, same road; resident engineer of construction, Canada Southern Ry.; assistant engineer, Port Dover and Lake Huron Ry.; Chief Engineer, Stratford and Huron Ry.; Superintendent, Port Dover and Lake Huron Ry.; General Superintendent, Georgian Bay and Lake Huron division, G.T.R.; Chief Engineer, Chicago and Grand Trunk Ry.; June, 1885, to July, 1898, Superintendent G.T.R. lines west of Detroit; July, 1898, to July, 1902, Assistant General Superintendent, Michigan Central Rd., at Detroit.

W. R. McInnes, who has been appointed Freight Traffic Manager of the C.P.R. at Montreal, was born June 7, 1867, at Hamilton, Ont., and was educated in England. He entered railway service July, 1884, as a clerk in the purchasing department of the C.P.R., remaining there until Nov., 1885, since which his record has been: Nov., 1885, to Sept., 1886, clerk, Solicitor's office; Sept., 1886, to May, 1887, clerk, General Traffic Manager's office; May, 1887, to Mar., 1896, chief clerk same office; Mar., 1896, to June, 1899, General Agent, freight department C.P.R., and Agent Canadian Pacific Despatch at Chicago, also during same period representative Minneapolis, St. Paul and Sault Ste. Marie Ry., and Duluth, South Shore and Atlantic Ry.; July, 1899, to June, 1901, General Freight Agent, lines west of Lake Superior, June, 1901, to Dec. 31, 1902, Assistant Freight Traffic Manager, lines west of Lake Superior, at Winnipeg.

The commission appointed to gather information on the subject of cattle guards on railways spent a considerable time in visiting different points in Canada and the United States. As a result of their investigations manufacturers are asked to submit their devices to a test with a view of ascertaining if they come up to the requirements of the commissioners. For the practical testing of these devices a stretch of track was laid in one of the buildings at the exhibition grounds, Ottawa, under the superintendence of G. A. Mountain, Chief Engineer of the Canada Atlantic Ry. The particular device to be tested was fixed, and cattle were driven in at one end of the building and then left to find their way out at will. The efficiency of the different devices was thus tested. The result of the labors of the commissioners will be embodied in a report to the Minister of Railways, who promised last session that he would introduce legislation on the subject at the forthcoming session of the Dominion Parliament.

Freight trains on all the great railways have reached such proportions as to length, as well as weight, that the problem of communication between the trainmen has become a serious one. The announcement that a western road is to supply conductors with field glasses and a heliograph outfit for use by the head brakeman and the engineer brings out the suggestion from a Montana paper that while this plan will work on some parts of the line, it will still be necessary to use the long distance telephone on others, as the trains are so long that the curves shut off the view of the engine from the conductor. The heliograph, it is conceded, may work on the plains, where the vision is not obstructed except by occasional blizzards, but for mountain sinuosities the trainmen are stated to prefer the far-reaching phone. Still better, perhaps, might be a narrow gauge track on top of the train, on which a light trolley car could rapidly convey the train officials in their business trips between rear and front end.—Railway Age.

G.T.R. shares have been listed on the Amsterdam bourse.

Railway Equipment Notes.

The St. John N.B. Ry. Co. has ordered six electric motors.

The Brantford Electric St. Ry. has placed four newly fitted cars on its lines.

The C.P.R. has placed new passenger coaches on the Pontiac Pacific Jct. Ry.

The Kettle Valley Lines are in the market for 20 or more hopper-bottom ore cars.

The G.T.R. has ordered materials for 25 locomotives, to be built at its Montreal shops.

The Irondale, Bancroft and Ottawa Ry. has added another locomotive to its equipment.

Rhodes, Curry & Co., car builders, etc., Amherst, N.S., have a pay roll of \$12,800 a fortnight.

The Intercolonial Ry. has added a private car, no. 75, to its equipment for General Manager Pottinger.

The Cape Breton Ry. recently added two 1st class passenger coaches and a baggage car to its equipment.

The Inverness Ry. and Coal Co. has ordered some coal hopper cars from Rhodes, Curry & Co., Amherst, N.S.

The G.T.R. has recently turned out of its Montreal shops 45 box cars, making 882 completed out of the order for 1,000.

The Cumberland Ry. and Coal Co. has ordered some 80,000 lbs. dump cars from Rhodes, Curry & Co., Amherst, N.S.

The Metropolitan Ry. is having four motor cars built in the Toronto Ry. shops. They are to be fitted with air brakes.

The New Brunswick Southern Ry. has ordered some freight cars, and will probably place an order for some passenger coaches.

The G.T.R. car shops at Montreal have recently completed an order for 10 2nd class coaches, and are now building 10 1st class coaches.

The Intercolonial Ry. has ordered from Rhodes, Curry & Co., Amherst, N.S., 300 box cars, 80,000 lbs. capacity, and 2 baggage cars.

The G.T.R. special car, 2904, has been repainted and named Muskoka. It is assigned

for the General Assistant and Comptroller, W. Wainwright.

The C.P.R. is reported to have ordered 500 flat cars to be built at the Algoma Central and Hudson's Bay Ry. shops at Sault Ste. Marie, Ont.

The Great Northern Ry. of Canada added 3 box cars, 50,000 lbs. capacity; 4 box cars, 60,000 lbs. capacity; and 6 stock cars, to its freight equipment during Nov.

The C.P.R. placed in service during Nov. the following additional equipment: 2,135 box cars, 44 refrigerator cars, 262 flat cars, 102 cabooses and 97 passenger cars.

The G.T.R. has recently turned out of its Montreal shops 6 Richmond compound locomotives, completing the order for 25, and making 42 locomotives built in 1902.

The Kingston, Portsmouth and Cataraqui Electric Ry. has refitted one of the motor cars bought from the Belleville Electric Traction Co., and put it in operation.

The Mabou and Gulf Ry. has purchased two consolidation 60-ton locomotives, and expects to shortly place an order for two more. Cars are also being purchased.

Pintsch System Car and Buoy Lighting.

This Company controls in the United States and Canada the celebrated Pintsch System of Car and Buoy Lighting. It is economical, safe, efficient, and approved by the railway managers and Lighthouse Board of the United States and Canada, and has received the highest awards for excellence at the World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta and Buffalo. 112,000 cars, 4,500 Locomotives and 1,250 Buoys are equipped with this light. 160 Railroads in the United States and Canada have adopted this system of lighting, applied to over 19,000 cars.

Car Heating.

This Company's Systems have been adopted by 120 of the principal Railroads of the United States and by the great Sleeping Car Company. They consist of The Steam Jacket System of hot water circulation, The Direct Steam Regulating System and Straight Steam (plain piping).

Automatic Steam Couplers. Straight Port Type.

THE SAFETY CAR HEATING and LIGHTING CO.,

General Offices: 160 Broadway, New York.

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CANADIAN REPRESENTATIVES

FRIED. KRUPP, ESSEN, GERMANY.

Steel Rails.

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FOR STEAM AND
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OFFICE: MERCHANTS BANK BUILDING 205 ST. JAMES STREET, MONTREAL.

The per-diem plan is forcing the snaller line to purchase more cars, and more orders are being received by the car-builders from this class of roads than from the larger systems.

The Westinghouse Air Brake Co.'s gross receipts for the past fiscal year were \$8,550,503; expenses, \$5,621,808; net earnings, \$2,928,695; dividends, \$2,634,468; surplus, \$294,227.

The Canadian Northern Ry. placed in service during Nov. one first-class passenger car, one dining car, 21 cabooses, 34 flat cars, 40,000 lbs. capacity; and 317 box cars, 60,000 lbs. capacity.

The C.P.R. day car Cornwall, which was part of the Duke and Duchess of York's train, is being changed into a private car. A state-room with bath attached is being added, and the pantry is being made into a porter's room.

The C.P.R. has ceased building freight cars at its Hochelaga shops, Montreal, which are now entirely engaged on passenger coaches, 30 1st class, 6 sleepers and 2 parlor cars being under construction.

The G.T.R. placed the following additional equipment in service during Nov., 10 cool-air cars, 212 box cars, 60,000 lbs. capacity; 36 flat cars, 60,000 lbs. capacity; 26 coal cars, double-drop bottoms, 60,000 lbs. capacity.

The Canadian Locomotive Co. is continually enlarging and improving its shops. It has just installed a triple-headed frame slotter, built by the John Bertram & Sons Co., Dundas, Ont., which is the largest tool of this character in Canada.

The G.T.R. has placed in service five more of the 2,000 series of coaches which were built at its Montreal shops. They are 62 ft. long, accommodate 68 passengers and have a smoking-room with accommodation for 14. They are lighted by Pintsch gas.

Motor and trailer trucks for electric railways are dealt with in the Record of Recent Construction, no. 38, issued by the Baldwin Locomotive Co. The Co. has built both motor and trailer trucks for the heaviest electric cars in service up to the present time.

The Kingston and Pembroke Ry.'s passenger coaches have been overhauled in the C.P.R. Montreal shops and fitted with Westinghouse air brakes. The locomotives have also been equipped with the brakes, and the coaches are now heated with steam from the locomotives.

The Cape Breton Electric Co. has received 4 motor cars, 30 ft. long, with double trucks, for main line traffic; 4 motor cars, 24 ft. long, for town traffic; and 4 trailers, 30 ft. long, each with capacity for 100 passengers. They are handsomely fitted up, have rattan seats, and are heated by electricity.

The Michigan Central Rd. has recently placed on its Canadian division five Atlantic type locomotives from the American Locomotive Co.'s Schenectady works. They weigh, exclusive of tenders, 176,000 lbs., of which 95,000 lbs. are on the drivers. The driving wheels are 72 in. diameter.

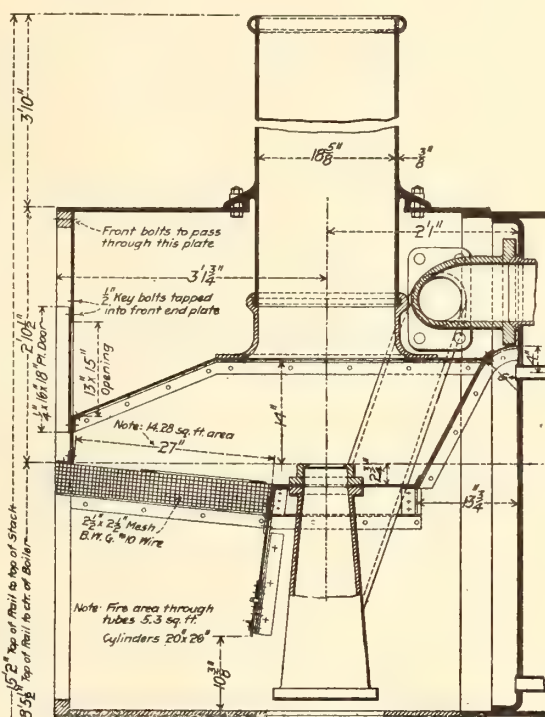
The Canadian Northern Ry. has bought the two locomotives which were built some years ago for the Chignecto Marine Ry., but which were not used owing to the failure of the project. They are being changed by the builders, the Canadian Locomotive Co., so as to be suitable for fast service.

The C.P.R. has recently added to its rolling stock 11 baggage cars, 60 ft. long, with 6 wheel trucks, having steel-tired wheels, built

at its Hochelaga shops, and 54 conductors' vans of the ordinary type, 33 ft. overend sills, built at its Farnham shops. Both baggage cars and vans are equipped with Westinghouse air brakes.

The Canadian Locomotive Co. has purchased a block of land on each side of the tract occupied by its works at Kingston, Ont. The purchase consists of about four or five acres, and, as business warrants, will give room for the expansion of the works to a capacity of about a locomotive per day. Six hundred men are now employed in the works.

The Canadian Locomotive Co. recently began delivering 10 locomotives ordered for the C.P.R. Three were delivered in Dec., and the remainder will be delivered during Jan. and early in Feb. After that the C.L. Co. will deliver 5 locomotives to the Intercolonial Ry., 2 to the Algoma Central and Hudson's Bay Ry., and 15 to the Canadian Northern.



FRONT END ARRANGEMENT, INTERCOLONIAL RAILWAY LOCOMOTIVE.

The old double-end locomotives, which hauled the coal from the Reserve mines to Sydney, N.S., before the advent of the Dominion Coal Co., have recently been taken apart at the Reserve, and will be disposed of as old junk. The machinists who took them apart say it was the hardest job they ever tackled, as the engines were very strongly built, and the parts mostly forge-made. They were built in England in 1870, and were known there as Fairlie's patent.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. has ordered 20 locomotives from the American Locomotive Co., including 3 compound consolidation, 3 compound mogul, and 4 passenger locomotives. The others will probably be compound mogul. Orders have also been placed for 200 flat cars, 7 day coaches, 5 baggage, 4 sleeping, 5 tourist sleeping, and 1 dining car.

The Brockville, Westport and Sault Ste. Marie Ry. will add to its equipment 1 locomotive, 2 passenger cars, 1 combination passenger and baggage car, and a number of 34 ft. box, flat and stock cars. The sale of the

line, to take place Jan. 20, may have some effect in delaying purchases. As car builders cannot promise delivery before June, the Co. is rebuilding some of its flat cars.

The Ottawa, Northern and Western Ry. has added one box car 40,000 lbs. capacity, and one flat car, 40,000 lbs. capacity to its equipment. All the other equipment on the line is marked with the initials of the Ottawa and Gatineau Ry. and the Pontiac Pacific Junction Ry., which are now amalgamated under the above title, and the initials O.N. and W. Ry. appear on the new rolling stock.

The Reid Nfld. Co. has recently added to its equipment, or has under order, 2 consolidation locomotives from the Baldwin Locomotive Works, 6 second-class passenger coaches, 150 flat cars, 35 ft. long, 40,000 lbs. capacity, 30 flat cars same length and capacity, and 1 mail and baggage car. The flat cars and the mail and baggage car were built at the Co.'s Whitbourne car shops.

Following are general dimensions, etc., of the 1,000 flat cars for which the C.P.R. recently placed orders, delivery to be made in March and April: capacity, 30 tons; length, 36 ft. 8 ins.; width, 8 ft. 10 ins.; material wood. The special equipment comprises: axles, steel; bolsters and brake beams, Simplex; brake shoes, C.P.R.; brakes, Westinghouse; brasses, St. Thomas Brass Co.; trucks, C.P.R. metal; wheels, C.P.R.

The Preston and Berlin Ry. Co. has purchased the Baldwin compound locomotive, which was built for the Hamilton and Dundas Ry., and only used on that line for a few months. It has also purchased two passenger cars, about 40 ft. long, and is having two more built. The road is built not only for fast electric passenger traffic, but also for freight traffic, with 35 or 40 ton electric motors, which will probably be put on later in the year.

Following are general dimensions, etc., of the 500 box cars for which the C.P.R. recently placed an order at its Perth, Ont., shops, to be delivered by Feb. 14: capacity, 30 tons; length, 36 ft.; width, 8½ ft.; height, 8 ft.; American Ry. Association inside dimensions; material, wood; underframe, wood. Special equipment, axles, steel; bolsters and brake beams, Simplex; brake shoes, C.P.R.; brakes, Westinghouse; brasses, St. Thomas Brass Co.; trucks, C.P.R. metal; wheels, C.P.R.

The U.S. Treasury Department has decided that the G.T.R. must pay \$100,000 duty on 11 Canadian-built locomotives which the Co. has been using temporarily in Maine. Extraordinary shipments of cattle placed too great a strain on the regular locomotives, and an appeal was made to the Treasury Department. The Treasury officials say that while engines might run into the country to a station across the border, it was not possible to interpret laws in a way that would permit foreign-built engines to run between stations within the U.S.

The C.P.R. Co. has placed an order for 12 passenger locomotives and 38 freight locomotives, to be built at the American Locomotive Co.'s Schenectady shops. Twelve passenger locomotives have been ordered in Scotland. The following orders have also been placed: 10 1st class coaches to be built at the Co.'s Hochelaga shops, 10 1st class coaches from Rhodes, Curry & Co., Amherst, N.S.; 10 1st class coaches, 6 sleeping cars and 2 dining cars to be built in the U.S.; 100 40 ton box cars at the Co.'s Perth shops; 100 box cars from Rhodes, Curry & Co.; 1,500 30 ton box cars, of which 500 will be built at the Co.'s Perth shops and 500 by Rhodes, Curry & Co.

C. Bermingham, Managing Director of the Canadian Locomotive Co., recently returned to Kingston, Ont., from Germany, bringing with him 61 skilled machinists, whom he secured at Dusseldorf. A small newspaper advertisement yielded 1,300 personal applications, while thousands arrived by mail. Mr. Bermingham says that in Dusseldorf and vicinity 3,000 skilled mechanics are idle and ready to go where work is promising. The men he secured are the very cream of the personal applicants. It is intended to put a night force and day force at work in the works, thus doubling the output, hence the necessity of importing the German mechanics. The Co. now pays \$8,000 wages fortnightly, which will be doubled when the new double shift system is established.

Rhodes, Curry & Co., Amherst, N. S., have all the new buildings of their immense plant about completed. The plant occupies about 15 acres. They put up last year a solid brick blacksmith shop, and have just finished a brick passenger car shop, 130 by 230 ft. The plant in the car department consists of a wheel foundry, grey iron foundry, axle shop, blacksmith shop, machine shop, paint, truck, tinsmith, pattern and wood-working shops; also erecting sheds for freight cars and passenger cars. The number of men employed averages 830. On an average they turn out between eight and nine cars a day. Besides the car department they have also a factory for building materials. They expect to be working in the new axle shop very soon.

A St. Thomas, Ont., correspondent writes:—"A notable feature in the Michigan Central Rd. locomotive and car shops is the increased amount of work being done with a normal

staff of employees, as a consequence of a more systematic adjustment in the method of doing work, especially in the car shops, where, in addition to the usual amount of repair work, thirty-two 80-000 lb. freight cars have been built during the past month, the largest number ever built in these shops in one month. It is claimed that as a result of the new system, cars are now being built at a less labor cost than was offered the men in the piece work proposal of the early spring. Twelve gondola flat cars have been turned out of the local shops of the Lake Erie and Detroit River Railway Co. during the past month for use in handling sugar beets in this district."

The illustration on page 15 shows the front-end arrangement which is being used on some 25 I.C.R. locomotives, and which is said to be giving very satisfactory results. In the arrangement which was introduced by J. E. Muhlfeld, until recently Superintendent of Machinery and Rolling Stock, the height of the smokebox is cut down to limits considerably below that which the diameter of the boiler allows. At the last master mechanics' convention Prof. Goss discussed the advantages of the inside stack. The principal point made was that within limits common to practice any stack should be as long as possible. In cases where the length of exposed stack is necessarily short, the advantage of a greater length can be secured by allowing the lower end to run into the smokebox. The Railroad Gazette points out that the effect of this discussion was to commend the inside stacks.

The Canadian Northern Ry. is having 15 mogul locomotives built by the Canadian Locomotive Co. Following are the general

dimensions, etc.: Weight in working order, 133,000 lbs.; weight on drivers, 107,000 lbs.; wheel base driving, 12 ft. 6 in.; wheel base rigid, 12 ft. 6 in.; total wheel base, 22 ft. 6 in.; total wheel base of engine and tender, 50 ft. 6 in. 11-16 ins.; cylinder, 19 in. x 24 in.; driving wheels, 56 in dia.; driving boxes, 8 in. x 9 in. journal; engine truck journals, 5 in. x 9 3/8 in. BOILER—Style, Belpaire; diameter at smokebox end, 58 in.; working pressure, 180 lbs.; firebox, 107 in. x 41 5/8 in.; firebox water space (front 4 in., sides 3 1/2 in., back 3 1/2 in.); tubes, 239-2 in., 1-14 tubes; tubes, length, 12 ft. 4 in.; firebrick supported on studs; heating surface—tubes, 1,536 deg.; firebox, 144 deg.; total, 1,680 deg.; grate area, 30 deg.; grate style, rocking; smoke stack top to rail, 14 ft. 3 1/4 in.; boiler supplied by two injectors. TENDER—Weight, 40,000 lbs. light; wheels no., 8; wheel diameter, 33 in.; journals, 5 ft. 9 in.; wheels base, 17 ft. 11 1/2 in.; tender frame, 10 in. steel channels; water capacity, 4,000 imp. gal.; coal, 8 tons.

The American Locomotive Co. has more orders on its books now than at any one time in its history. The plants are being operated to their fullest capacity, and good results are being attained in the matter of making deliveries in accordance with the terms of contracts. The tremendous amount of freight being offered to the railways has made them persistent in their demands to have locomotives delivered promptly. There is no sign at the present time of any diminution in the demand for locomotives. The Co. is taking orders for delivery in 1904. It is a noteworthy fact that for months the Co. has made no effort to secure foreign business. The reason is that the domestic demand has been so great that the management felt that its first duty

INTERCOLONIAL RAILWAY

EUROPEAN "MARITIME MAIL THE SERVICE EXPRESS"

CANADA'S FAMOUS TRAIN

Leaving Montreal (Bonaventure Depot) 12.00 noon Sunday,
carrying the English Mail, lands

Passengers, Baggage and Mail

alongside the Royal Mail Steamships at Halifax the following
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was to supply the needs of the roads in the U.S. The Co. has recently refused to name prices on some foreign orders; for this reason it was impossible to fill such orders without ignoring the demands of the U.S. lines. The earnings so far this current fiscal year are running ahead of the same period last year. The improvements during the last year have resulted in attaining greater efficiency in the operating departments, and this fact is expected to be reflected in the earnings for the current fiscal year.

The Central Ontario Ry. has recently obtained some simple 10-wheel locomotives from the Canadian Locomotive Co. Following are the general dimensions: Weight, working order, 115,000 lbs.; weight on drivers, 85,000 lbs.; wheel base, driving, 11 ft. 10 in.; wheel base, total, 21 ft. 3½ in.; cylinder, 18x24 in.; driving wheels, 57 in. dia. Boiler—style, radial stay; dia. of smokebox end, 55 in.; working press., 180 lbs.; firebox, 95½x41 in.; firebox water space, front 4, sides 3½, back 3½ in.; tubes, 239, 2 in. dia., length, 12 ft. 4 in.; firebrick supported on tubes. Heating surface—tubes, 1,235.0 sq. ft.; firebox, 119.0 sq. ft.; firebrick tubes, 14.7 sq. ft.; total, 1,367.7 sq. ft.; grate area, 27.2 deg. Tender—weight of tender, 37,000 lbs.; light; wheel base, 15 ft. 4 in.; frame, 10 in. channels; water capacity, 3,800 gals.; coal, 6 tons; total wheel base of engine and tender, 48 ft. 11¾ in. The locomotives are plain, and substantially built and well adapted for the work they are expected to do. The forward driving wheel is not equalized with either of the others, but has a spring carried over the frame in the usual way. The main driver and trailer are equalized by a semi-elliptic spring placed between them, bearing up against the lower frame bar, a pair of coil springs in front of the driver and in rear of the trailer complete the spring system. The expansion link is laid out on a 48 in. radius, and this brings it well in front of the rocker arm and what is generally called the transmission bar, in this case, runs back from its hanger to the rocker. The main driving wheels are not flanged. The boiler is 55 in. diameter at the smokebox, and the top check is placed exactly on the centre line. The crown sheet is radially stayed, and the washout plugs are placed so as to follow its arched contour. The tender frame is made of structural steel, being in fact 10 in. channels. The whole is carried on diamond trucks, with wooden bolsters.

The C.P.R. has placed the following orders for rolling stock, in addition to those stated in preceding paragraphs under this heading: 20 passenger locomotives, to be built in Scotland; 100 refrigerator cars and 100 stock cars, 30 tons capacity, to be built by Rhodes, Curry & Son, Amherst, N.S.; 500 flat cars, 30 tons capacity, to be built at Sault Ste. Marie, Ont.; 100 coal cars, 40 tons capacity, and 50 ore cars, 30 tons capacity, to be built at Co.'s shops, Perth, Ont.; 1 wrecking crane, 50 to 60 tons.

Imperial Rolling Stock Co.

This company, with headquarters in Toronto, has the following officers:—President, W. Mackenzie; Vice-President, D. D. Mann; other directors, Z. A. Lash, F. Nicholls, J. M. Smith. Its capital stock is \$300,000 fully paid up. It was incorporated for the purpose of supplying railway companies, primarily the Canadian Northern, with rolling stock on the car trust plan, the I.R.S. Co. purchasing rolling stock outright and leasing it at a rental, or agreeing to sell it to the railway company, the latter contracting to pay for the rolling stock in regular instalments sufficient to meet the interest and retire the bonds as they mature. At maturity, when all the pay-

ments have been made, the ownership of the rolling stock is transferred to the railway company, but the title remains vested in the rolling stock company until all payments therefor have been made. In the meantime the railway company is required to furnish the trustees from time to time with a detailed statement as to the rolling stock, to maintain it in good repair, and to pay for or replace any stock destroyed or damaged. The rolling stock is kept insured against loss by fire, loss if any being payable to the trustees for the bondholders, to be applied in purchasing new rolling stock to replace any that may be burned.

The Imperial Rolling Stock Co. has issued \$1,330,148.21 five per cent. first mortgage gold bonds, covering rolling stock which the Canadian Northern Ry. has agreed to buy for that sum and interest. The rolling stock, which is new and was paid for in cash, consists of 29 locomotives, 1 dining car, 3 combination baggage, mail and express coaches, 828 box cars, 3 second class passenger and smoking cars. The Imperial Rolling Stock Co. retains the title to this rolling stock, and holds in addition \$440,000 mortgage bonds of the C.N. Ry. as security. The Dominion Securities Corporation, Toronto, is offering part of the I.R.S. Co.'s bonds above mentioned at a price to yield 5½% per year.

C.P.R. Superannuation Fund.

The President, Sir Thos. G. Shaughnessy, has issued a circular stating that the Co. feels that a time has arrived when some provision should be made for officers and permanent employees who, after long years of faithful service, have reached an age when they are unequal to the further performance of their duties. With this object in view, the directors have determined upon a plan of superannuation, the particulars of which are set out in the accompanying rules and regulations. The system adopted calls for no contributions from the employees. The Co. hopes, by thus voluntarily establishing a system under which a continued income will be assured to those who after years of continuous service are by age or infirmity no longer fitted to perform their duties, and without which they might be left entirely without means of support, to build up amongst them a feeling of permanency in their employment, an enlarged interest in the Co.'s welfare, and a desire to remain in and to devote their best efforts and attention to the Co.'s service.

The rules and regulations provide that the administration of the pension department shall be under the control of a committee consisting of the President, the vice-presidents and the Chief Solicitor, who shall meet monthly and shall have power to make rules for the efficient operation of the department; to determine the eligibility of employees to receive pension allowances; to fix the amount of such allowances; and to prescribe the conditions under which such allowances may inure. The proceedings of the committee shall be subject to the approval of the Board. The benefits of the pension system shall apply only to those persons who have been required to give their entire time to the Co., or to the Co. and some other railway company or railway companies jointly. In cases of joint employment, and when the whole salary is not paid by this Co., the pension to be paid by this Co. shall be estimated upon the proportion of salary or wages received from this Co. All officers and employees who have attained the age of 65 shall be retired, and such of them who have been 10 years or longer in the Co.'s service shall be pensioned. The committee, however, shall have power to retain in the service any employee who has reached the age of 65 if, in their opinion, it is in the interest of the Co. to do so; provided that no employee

who has reached the age of 65 without having served 10 years continuously in the Co.'s service, and who shall be retained in the service after he attains the age of 65, shall be eligible for pension allowance. Officers and employees between the age of 60 and 65 may, at the discretion of the committee, be retired with a pension either upon the application of such employee or upon the recommendation of the head of the department. Under special circumstances the committee shall have the power to retire with a pension employees who have not reached the age of 60, and the committee shall also have the power in special cases to add additional years to the actual term of service, provided that in each case the approval of the Board shall be obtained. Physical examination shall be made of employees recommended for retirement who are under 65, and a report with the recommendation of the Co.'s Surgeon shall be transmitted to the committee for consideration in dealing with such cases. Six months' previous notice shall be given to employees who are to be compulsorily retired. Retirement shall be made effective from the 1st days of Jan. or July in each year. The terms "service" or "in the service" shall refer to employment upon or in connection with any other railways operated by the Co., and the service of any employee shall be considered as continuous from the date since which he has been continuously employed upon such railways, whether prior or subsequent to their control or acquisition by the C.P.R. Co.; provided that in no case shall such service be counted for any period prior to the incorporation of the C.P.R. Co. In computing service it shall be reckoned from the day since which the person has been in the service to the date when retired. Leave of absence, suspension, dismissal followed by reinstatement within one year, or a temporary lay-off on account of the reduction of forces, need not necessarily be treated by the committee as constituting a breach in the continuity of the service, and the time when so laid off or absent, unless the employee has during such absence entered other employment, may be allowed by the committee to count as part of such service. Persons voluntarily leaving the employment of the Co. when their services are required thereby become ineligible for pension allowance. The pension allowance authorized shall be granted upon the following basis: For each year of service an allowance of 1% of the average monthly pay received for the 10 years preceding retirement. For instance, an employee has been in the service for 40 years and received on an average for the last 10 years \$50 a month the pension allowance would be 40% of \$50 or \$20 a month. In calculating the period of service upon which the pension allowance is based, the broken period following the completion of a year, when it is less than six months, shall not be counted, when it exceeds six months it shall count as an additional year. When pension allowances are authorized, pursuant to these regulations, they shall be paid monthly during the life of the beneficiary, provided, however, that the Co. may cancel any pension in case of gross misconduct on the part of the pensioner. Pay-rolls covering all pension allowances, showing the names of those to whom such allowances have been made and the amount of such allowances, shall be prepared at the close of each month by the Secretary of the department; shall be certified by him; shall be countersigned by at least one member of the committee; and shall be forwarded to the accounting department for registration and payment. The officer in charge of the staff records of the Co. shall report to the pension department on the 1st days of Jan. and July in each year, the names with the particulars of service of all employees who will attain, during the ensuing six months, the requisite age for consideration for a pension

allowance. The Secretary of the pension department shall keep himself informed of the whereabouts of all employees who have been retired from the service, and shall require satisfactory evidence from each of such employees, at least once a year, that he still comes within the rules of the pension department. In order that the direct personal relations between the Co. and its retired employees may be preserved and that they may continue to enjoy the benefit of the pension system, no assignment of pensions will be permitted or recognized. The acceptance of a pension allowance does not debar a retired employee from engaging in other business, but such retired employee cannot so engage in other business nor re-enter the service of the Co. except with the consent of the committee, without forfeiting his pension allowance. The establishment and continuance of this system of pensions is entirely a voluntary act on the part of the Co., and as the employees do not in any way contribute towards it neither the action of the board in establishing such a system, nor any other action now or hereafter taken by them or by the committee in the inauguration or operation of the pension department shall be construed as giving to any officer or employee of the Co. a legal right to be retained in its service, or any legal right or claim to pension allowance. While it is the policy of the Co. to encourage its employees to remain with it and do faithful service to earn a pension, the Co. expressly reserves its right and privilege to discharge at any time any officer, agent or employee when the interests of the Co., in its judgment, may so require, without liability for any claim for pension or other allowance than the salary or wages due and unpaid. These rules and regulations take effect on Jan. 1, 1903, and may be altered or repealed from time to time as the committee, subject to the approval of the board, may determine.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Adams' River to Hectate Channel, B.C.

D. G. Macdonnell, solicitor, Vancouver, gives notice that application will be made at next session of the B.C. Legislature for an act incorporating a company to construct a railway from the mouth of Adams' river, Vancouver island southwesterly, via the Klance river valley to Gold river and Hectate channel on the western coast of the island.

Alberta Ry. and Coal Co. It was expected that the widening of the gauge from the International boundary to Lethbridge, Alta., would be completed by Jan. 1.

Alberta Railways.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Macleod, via Standoff and Cardston, Alta., to the International boundary, with power to connect with U.S. lines. Perkins, Fraser and Burbidge, are solicitors for the promoters.

Algoma Central and Hudson's Bay Ry.—It is reported that the grading on the right of way is completed to a junction with the Michipicoten branch, but that many of the bridges are in an unfinished condition. An interesting feature of the line between Ogidaki and the junction is the run through the Agawa river gorge. No track was laid in 1902. F. H. Clergue recently stated that none would be laid beyond Ogidaki until next summer.

Surveys are being made for the location of the line from near the Josephine mine to the C.P.R. transcontinental line at White River, 746.5 miles from Montreal. One object of this line is to touch the Frances mine, a recently discovered iron ore mine, some miles east of Dog river and south of Herrick's line. From

this point the projected line will run northerly to Chatonga lake, northwesterly to McMaster University lake, and to White River. The length of the projected extension is about 45 miles. (Nov., 1902, pg. 380.) See also Canadian Northern Ry.

The Atlantic, Quebec and Occidental Ry. will apply at the next session of the Quebec Legislature for an act extending for two years the time within which it may commence its line, and for five years, the time for completing it.

Atlantic, Quebec and Western Ry.—An order-in-council has been passed by the Quebec Government, bringing into effect an act passed by the Legislature in 1901, on the application of H. Higgins, A. W. Carpenter, C. E. Preston-Hillary, of London, Eng., and J. X. Lavoie, of Perce, Que., which authorizes the construction of a railway from Gaspé basin, through the centre of Gaspé county to a junction with the Intercolonial Ry. between Lake Metapedia and Causapscal, Que. Considerable opposition to the passing of the act was shown by the residents along the Baie des Chaleurs, which is served by the Atlantic and Lake Superior Ry., extending from Metapedia, on the I.C.R., to the 100th mile, 2 miles beyond New Carlisle. The A. and L. S. Ry. has power to construct a line along the coast line to Gaspé basin. A company has recently been formed in London, Eng., under the title of the New Canadian Co., with a capital of £100,000, of which £50,207 has been subscribed and 25% paid up, to take over the A., Q. and W. charter and construct the line. It is stated that the Co. will apply for a Dominion act at the ensuing session of Parliament, but no notice of such intention had been given to Dec. 20. The directors of the Co. are W. Griffiths, J. J. Mellowes and S. Lee, of London, Eng., and C. B. K. Carpenter, of Gaspé. The Secretary is E. S. Elvey, and the

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GENERAL OFFICES

25 Broad Street, NEW YORK CITY.

London offices are at 120 Bishopsgate st. Within. Sir Douglass Fox & Partners are consulting engineers. The solicitors in Canada are Gouin, Lemieux & Brassard, Montreal. The London officials of the Co. state that surveys will be commenced early in Jan., and the line, about 140 miles, will be completed in two years.

An application for an act to construct a line from Gaspé basin, to a junction with the I.C.R. at Fraserville, Que., was made at the last session of the Dominion Parliament on behalf of W. Barwick, Toronto; J. B. R. Fiset, Rimouski; O. E. Talbot, Quebec; J. A. Ross, St. Flavie; C. A. Gauvreau, Isle Verte; M. Connelly and J. Q. Perrin, Montreal; A. Colby, New York city. The application met with considerable opposition from the Minister of Railways, the bondholders of the Atlantic and Lake Superior Ry., and a number of private members and was abandoned.

Bangor and Aroostook Rd.—An extension of 52 miles from Ashland to Fort Kent, Me., has been completed and was put in operation Dec. 8. This extension brings the B. and A. Rd. to the St. John river, opposite Fort Kent, N.B., on the St. Francis Branch of the Temiscouata Ry. A. E. Trites, of Salisbury, N.B., had charge of the whole work, and C. Le B. Miles and J. Stewart had contracts for grading 7 miles and a number of sidings on the line.

Bay of Quinte Ry.—Press reports state that 6 miles of line have been completed, and that the new short route between Kingston and Napanee, Ont., has been opened. Hitherto the B. of Q. Ry. reached Napanee over the G.T.R. tracks from Deseronto Jct. Work has been carried on improving the line between Tweed and Yarker, a heavy grade at Enterprise being cut down among other works.

Press reports credit an officer of the Co. with stating that contracts are to be let in the near future for a line from Tweed to Bannockburn, 20 miles, by way of Actinolite and Queensboro'. (Nov., 1902, pg. 381.)

The Brandon and Southwestern Ry. Co. will apply at next session of the Dominion Parliament for an act providing for the extension of its proposed line from Gladstone to Lake Winnipegosis, thence northerly to the Saskatchewan river; to authorize amalgamation with any railway company and extending the time within which it has to commence and complete its undertaking. (March, 1900, pg. 75.)

Brantford St. Ry.—The tracks in the west Brantford section are being raised prior to the inauguration of a regular service. An 80-ft. extension is being built to the power house, in which it is proposed to install a 350-h.p. engine and additional boilers. The cost of these alterations will be \$30,000. (Nov., 1902, pg. 381.)

British Columbia Electric Ry.—The machinery in the car shops at Vancouver has been installed, and the shops will be in operation early this year.

A short extension has been completed from St. Lawrence along Ontario st., Victoria, and the Erie st. section will be torn up. (Nov., 1902, pg. 381.)

British Columbia Monorail Ry.—Application will be made at the ensuing session of the B.C. Legislature to incorporate a company to construct railways upon the monorail system in B.C. F. Moberly, C.E., is one of the promoters of the company, and the notice of application is given by C. H. Lugin, solicitor, Victoria, B.C. Notice has also been given that a Dominion charter will be applied for at the next session.

British Columbia Northern and Mackenzie Valley Ry.—Application will be made at next session of the Dominion Parliament for an act incorporating a company to construct

a railway from Nasoga gulf, at the mouth of Naas river, B.C., by way of the Naas and Stikene rivers to Dease lake; thence to Telegraph creek, and thence by the Liard, Pelly and Stewart rivers to Dawson, Yukon Territory, and a branch from Dease lake to the eastern boundary of the province of B.C. Notice has been given that application will also be made to the B.C. Legislature for an act incorporating a company to construct the line mentioned above. C. H. Lugin, solicitor, Vancouver, is acting for the promoters.

Bruce Mines and Algoma Ry.—The two-mile extension from the C.P.R. tracks to the shore of Lake Huron, via Bruce Mines village, Ont., has been completed. (Nov., 1902, pg. 381.)

Bull Park to Cowley.—Application will be made at the next session of the Dominion Parliament for an act incorporating a company to construct a railway from the North Fork river near Bull Point, to a junction with the Crow's Nest branch of the C.P.R., near Cowley, Alta.

Burke Channel to B.C. Boundary.—Application will be made at next session of the B.C. Legislature for an act incorporating a company to construct a railway from the Pacific coast at Burke channel, to the Pine river pass or the Yellowhead pass, or both, via the Bella Coola river, Palmer's trail and Black water river; thence to the eastern boundary of the province; and a railway from where the above will cross the 125th meridian, to Burrard inlet, with power to construct branches not exceeding 150 miles in length. Robertson and Robertson, Victoria, are the solicitors.

Calgary and Edmonton Ry.—In connection with the termination of the arrangement under which the C.P.R. has been operating the line, and its probable purchase by the C.P.R., extensive repairs to the track are being made. Press reports state that \$100,000 will be expended on the repairs. As to the proposed extension of the line, a number of statements are being made regarding the intention of the Co. The C.P.R. has survey parties working from Strathcona easterly. (June, 1902, pg. 189.)

Application will be made at the ensuing session of the Dominion Parliament for an act authorizing the construction of the following lines: from Wetaskiwin, Alta., easterly for 100 miles; from between Lacombe and Red Deer, Alta., easterly for 100 miles; from Strathcona, into Edmonton, Alta.; from near Edmonton, northwesterly for 100 miles. J. W. Neilson, of St. John, N.B., and T. Bowen, of Calgary, Alta., have been looking over the ground for the Co. See also Manitoba and Northwestern Ry. under C.P.R. betterments, etc.

Canada Atlantic Ry.—An agreement has been arrived at with the city respecting the Elgin st. subway, Ottawa, and a draft order-in-Council prepared. This provides for a subway 60 ft. in width, to be constructed by the C.A. Ry., the Dominion Government providing the steel girders, and the Ottawa Improvement Commission to provide for drainage, lighting and maintenance. The subway is to be completed by Aug. (Aug., 1902, pg. 262.)

Canada Central Ry.—Application will be made at the ensuing session of the Dominion Parliament for an act authorizing this Co. to construct the following additional lines: from near Sudbury to Scotia Jct., thence southerly to Toronto; from a point on the previously authorized line in Keewatin district, to Fort Churchill, on Hudson's Bay; from Tête Jaune Cache, B.C., to Vancouver; from near the Thompson river to Waddington Harbor or Bute Inlet, B.C.; from old Fort Assiniboia to Peace river, and thence to the Portland canal on the Pacific coast. The Co. also proposes to make application to the Ontario Legislature to authorize it to construct such of these

lines as are in Ontario, in addition to those authorized by the act obtained in 1902. The Canada Central Ry. Co. was incorporated in 1902. (June, 1902, pg. 189.)

The Co. has also given notice that application will be made at the ensuing session of the Ontario Legislature for an act authorizing the construction of such of the lines mentioned as are situated in Ontario.

The Canada Fish Co., the provisional directors of which are J. G. Strong, B. E. Bull, W. R. Williams, H. G. Osterhunt and W. G. Francis, all of Toronto, have obtained the right of fishing in Lake Nipigon, exclusive of bass and speckled trout, for 20 years, from the Ontario Government, one of the conditions attached to the contract being that 40 miles of railway from the C.P.R. transcontinental line to the lake is to be constructed.

Cape Breton Ry.—A construction train has been operated from Port Hawkesbury to Grand Ainsie, N.S., 20 miles, and it was expected that the track would be laid into St. Peters by Jan. 1. Stations have been built at Port Inhabitants, White Sides, Grand Ainsie, Sporting Mountain and St. Peters. A branch of about a mile to the Government wharf on St. Peters canal has been completed. The heaviest bridgework was the steel bridge over the River Inhabitants, erected by the Dominion Bridge Co., of Montreal, at a cost of about \$40,000. (Nov., 1902, pg. 381.)

Cape Breton Electric Co.—This project was promoted by B. F. Pearson, of Halifax, and was taken up by Stone & Webster, of Boston, Mass., who have built and now operate a number of street railways in the U.S. The C.B. Electric Co. owns the lighting plant in Sydney (some 9,000 lights), and has built 5 miles of line in Sydney; 3 miles more are projected, but will not likely be built before this summer. It owns the ferry service between Sydney and North Sydney (8 miles apart), and operates three steamboats, running about every half hour. It also owns the electric light plant of North Sydney, and has completed about 5 miles of electric line between North Sydney and Sydney mines. When Stone & Webster took up this project it was their intention to make extensions to Glace Bay and other mining centres in that neighborhood. The Dominion Coal Co., however, owned the bulk of the land through which the proposed extensions would pass, and also owned a steam road connecting all those points with Sydney. It raised objections to the new company invading its territory, and after some months' negotiations a compromise was effected, whereby a new company, the Sydney and Glace Bay Electric Ry., was formed, in which the C.B.E. Co. owns one half the stock, and the Dominion Coal Co. the other half. This Co. has power to extend the tracks from the limits of Sydney to Glace Bay and other points. The franchise was acquired from the municipality of Cape Breton county, and the town of Glace Bay, and runs for 30 years. The length of this road is 21 miles. It is completed from Sydney to Glace Bay, and is operated by the C.B.E. Co. The track is a good one, with favorable gradients, generally laid with 60-lb. T rails on hemlock ties, 3,000 to mile, with 1,800 yds. good broken stone ballast to the mile. The power house is equipped with two 300 K.W. generators, one for lights and the other for railway, driven by two 500 h.p. engines, also a third 500 h.p. tandem compound. This latter engine is at present running lights and also railway when temporarily operated; and is run by a battery of 6 boilers, 150 h.p. each. The smoke stack is 120 ft. high, and 8 ft. diameter. (Nov., 1902, pg. 381.)

Cardiff Ry. Co.—Application will be made at next session of the Dominion Parliament for an act incorporating a company under this title to construct a railway from sec. 31, tp. 6, range 3, west of the 5th meridian, N.W.T.,

to near Frank on the C.P.R. Crow's Nest Pass line. Latchford, McDougall and Daly, Ottawa, are the solicitors.

Charlottetown Electric Ry.—A. F. Ger-ald, of Fairfield, Me., has been looking over the ground with a view of building an electric railway in Charlottetown, P.E.I., and its vicinity.

Chateaugay & Northern Ry. A contract is reported to have been let to C. E. Loss, of New York, for the construction of 35 miles of track from Joliette, on the line of the Great Northern Ry. of Canada, to Charlemagne, Que. Another is reported to be let to Shearer & Co. for the substructure of a bridge at Bout de l'Île, which will give an entrance to Montreal over the tracks of the Montreal Terminal Ry. The C. and N. Ry. will be constructed in connection with the G.N. Ry. of Canada. (Nov., 1902, pg. 381.)

Coast Yukon Ry. Co.—Application will be made at the next session of the Dominion Parliament for an act incorporating a company under this title to construct a railway from near Kitamaat inlet, Douglas channel, B.C., to Atlin lake, thence to the Yukon river, and via Dawson to the International boundary between Yukon territory and Alaska, U.S. D. G. Macdonnell, Vancouver, B.C., is the solicitor.

The Crow's Nest Pass Co. (Ltd.) has been incorporated under the B.C. Companies' Act, with a capital of \$100,000, to construct steam or electric railways or tramways in connection with its logging and development work in the Crow's Nest Pass country.

Cuba Co.—The railway from Santiago to Santa Clara, Cuba, about 335 miles, constructed for the Cuba Co., of which Sir William Van Horne is President, was formally opened Nov. 24, and a regular train service was put in operation Dec. 8. The trunk line is through rock, jungle and forest, over plateaus, rivers and valleys, and touches the main towns and native villages between the two extreme points. Later, branch lines, now in course of construction, will be opened for public traffic between Santiago and the Bay of Nipe, Jucaro and San Fernando, as well as from Santa Esperito Junction on to Santa Esperito City. A large hotel, to cost \$350,000, is projected at Havana. (Aug., 1902, pg. 263.)

Cumberland Ry. and Coal Co.—The work of strengthening the roadbed from Springhill

Jct. to Parrsboro', N.S., has been completed and 80-lb. rails have been laid. Water-tanks have been built at various points and electric lights have been installed at the switches. (Nov., 1902, pg. 381.)

Dawson to B.C. Boundary.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Dawson, Yukon, to the northern boundary of British Columbia, where a junction will be made with the proposed Pacific, Northern and Omenica Ry.

Detroit River Bridge.—While the Michigan Central and Grand Trunk railway officials have been wrangling over the proposed site for a bridge over the Detroit river at Detroit the vessel interests have had no cause for worry. It was certain that the bridge pro-

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NOTICE.—The Canadian Pacific Railway Company will apply to the Parliament of Canada, at its next session, for an Act amending the Act 51 Victoria, chapter 51 (Canada) by inserting the word "consolidated" before the word "debenture" where it occurs in the second section of the said Act, and authorizing the Company to issue consolidated debenture stock ranking pari passu with the consolidated debenture stock issued or authorized under other Acts relating to the Company, in lieu of bonds in respect of the Pheasant Hills Branch of the Company's Railway as constructed or to be constructed, and in lieu of bonds in respect of any branch railway constructed or to be constructed under the powers contained in the Company's charter, and in all cases where the Company is authorized to issue bonds, and for other purposes.

By order of the Board,

CHARLES DRINKWATER

Secretary.

Montreal, 8th December, 1902.



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RAILWAY APPLIANCE
COMPANY**
Offices and Works,
Montreal, Que., and Hammond, Ind.
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New York, Chicago, St. Louis.

ject would not make much progress while the railway companies disagreed and that more than one bridge would not be permitted under any circumstances. Now E. W. Meddaugh, counsel for the G.T.R., is credited with saying that the question of site has practically been agreed upon and that the congress now in session will probably be asked to pass a bill which he thinks will not meet with objection from the vessel interests on account of provisions as to height, wide river span, etc.—Marine Review.

Press reports state that a conference took place at Detroit, Dec. 18, between C. M. Hays, 2nd Vice-President and General Manager, G.T.R., and representatives of the Michigan Central, Wabash and Pere Marquette railroads in reference to a location for the projected bridge. (April, 1902, pg. 123.)

Digby and Sydney Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a railway from Digby to Windsor Jct., on the I.C.R., thence easterly to Mulgrave, and to Sydney, N.S.

Duluth, Virginia and Rainy Lake Ry.—Track was recently reported to have been laid to Tabor, Minn., 80 miles south of Koochiching, on Rainy river. Grading between track end and Koochiching will be gone on with all winter, and it is expected that the river will be reached by Sept. Nothing is decided as to the suggested connection with the Canadian Northern Ry. at Fort Frances, Ont., opposite Koochiching. (June, 1902, pg. 190.)

Edmonton and Peace River Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Edmonton to Athabaska Landing, thence to Lesser Slave lake, and to its western limits, and thence northwesterly to Fort Dunvegan, on Peace river, and along Peace river to the forks of Pine river, B.C.; with power to construct a branch to Grand Prairie, B.C.; and tramways at Vermilion rapids on Peace river, and at the portages on Slave river. The application for the charter is being made on behalf of the Northern Colonization Co., of St. Paul, Minn., which has acquired considerable land in the territory to be opened up. McGivern & Haydon, Ottawa, are the solicitors.

Edmonton Street Ry.—Notice is given that application will be made next session of the Dominion Parliament for an act amending the act of incorporation by enabling amalgamation to be made with any other railway company than the Calgary and Edmonton Ry.; and authorizing the construction of lines to 50 miles beyond the limit of the town, instead of 10.

Edmonton, Yukon and Pacific Ry.—A station and engine house has been erected at Edmonton, and a station at the junction with the Calgary and Edmonton Ry. at Strathcona, Alt. The line between Strathcona and Edmonton has been in operation for some time, and is reported to be a great convenience.

D. D. Mann and J. N. Greenshields, K.C., of Montreal, visited Victoria, B.C., recently, in company with the B.C. Commissioner of Lands and Works, who had been in Ottawa, consulting with the Dominion Government upon railway matters in the province. It is stated that a modification of the conditions under which the contract to construct a line from Bute Inlet via Yellowhead pass, B.C., to Edmonton, was entered into in 1902, and an increased subsidy have been asked for. In the course of an interview on returning to the east, D. D. Mann stated that no contract was made with the B.C. Government; no new arrangements had been made, and he did not expect that anything would be done until the Legislature met again. (Nov., 1902, pg. 381.)

Egerton Tramway Co. (Ltd.)—C. A. Flaherty, of Boston, Mass., has recently been in New Glasgow, Pictou, and other points in Nova Scotia, negotiating for franchises. The Co. proposes to open up a summer resort at Abercrombie, to which electric cars will be run at 5 cent fares from New Glasgow, Pictou, and all other points touched by the line. (Nov., 1902, pg. 381.)

Empire Mining and Tramway Co.—J. P. Sherry, of Memramcook; F. W. Given, W. J. Weldon, of Moncton; A. E. Brown, St. John; D. J. Patrick, Macan, have been incorporated under the New Brunswick Companies' Act with this title, with power among other things to construct steam or electric tramways in connection with its collieries at Macan, N.B.

Esquimalt and Nanaimo Ry.—We were recently advised that no decision had been arrived at respecting the projected spur $3\frac{1}{2}$ miles in length, from Westholme to the Crofton smelter, and that in any event nothing would be done until next spring. (Nov., 1902, pg. 381.)

Fernie to International Boundary.—Cornwall & Rogers, solicitors, Victoria, give notice that application will be made at the ensuing session of the B.C. Legislature for an act incorporating a company to construct a railway from Fernie, via Elk river to Morrissey creek, thence to Lodgepole creek, and via the Flathead river to the International boundary; also from Fernie northerly to 28 miles north of the mouth of Michel creek, with power to construct branch lines.

Fort Frances, Manitou and Northern Rd. Co.—Notice is given by Kerr, Bull and Rowell, solicitors, Toronto, that application will be made at next session of the Ontario Legislature for an act incorporating a company with this title to construct a railway from Fort Frances, to the C.P.R. transcontinental line at Dinorwic, 193 miles west of Fort William, thence northerly to Lac Seul, with branches from Manitou lake to Dymont station, 182 miles west of Fort William; from near Manitou lake to Dryden station, 211 miles west of Fort William, as well as others not mentioned.

Fraser River Bridge.—Plans and specifications for the construction of this bridge were deposited with the Minister of Public Works at Ottawa, and application was made to the Railway Committee of the Privy Council for authority to construct the same. The application was opposed on behalf of the C.P.R., on the ground that it interfered with its right of way. The committee reserved judgment and will have an examination of the site made by an engineer before coming to a decision. The B.C. Government has made application to the Dominion Government for a subsidy of \$250,000 towards the construction of the bridge. The Provincial Commissioner of Lands and Works, Mr. Wells, stated on his recent return to Victoria, B.C., from Ottawa, that an offer had been made to the B.C. Government by a railway company to construct the bridge. (Nov., 1902, pg. 381.)

Grand Valley Ry. (Electric).—Track has been laid from Brantford to Paris, Ont., about 6 miles, but the line will not be operated until the spring. The Von Echa Co., which is building the line, proposes to construct the section of the line from Paris to Galt, via St. George and the cement works at Blue lake, in the spring; and have it completed by Sept. This section would be eighteen miles long. An entrance into Galt has not yet been arranged for. (Nov., 1902, pg. 381.)

Great Northern Ry. of Canada.—We were recently advised that no decision had been reached respecting the construction of a branch from Lachute to St. Philippe, or the projected branch to the granite quarries in Argenteuil county.

The acquisition of the Montford and Gatineau Ry. rendered it necessary to construct a line connecting it with the G.N. Ry. A line about 10 miles in length has been surveyed from St. Sauveur, 3 miles from the starting point of the line at Montford Jct., on the C.P.R. branch, to Labelle, to a junction with the Co.'s main line about $1\frac{1}{2}$ miles south of St. Jerome. It is intended to extend this line from St. Jerome, about 25 miles, to a junction with the Chateaugay and Northern Ry.; for the construction of which a contract is reported let. The line from St. Sauveur to St. Jerome is fairly heavy but does not present very great difficulties. There will be an average grade of $1\frac{1}{2}\%$, and a maximum curvature of 6° . It is said construction of this line will be gone on with in the spring. (Nov., 1902, pg. 381.)

Great Northern Ry., U.S.A.—The annual report, recently issued, mentions the following among the subsidiary lines built during the past year:—Montana and Great Northern, Jennings to Gateway, Mont. (on the International boundary), 50.98 miles, opened for operation July 10, 1902; Crow's Nest Southern, Gateway to Morrissey Jct., B.C., 44.26 miles, with a spur from Morrissey Jct., to Morrissey, B.C., 4.21 miles, opened for operation on Sept. 15, 1902; Washington and Great Northern, Marcus to Boundary, Wash., 27.66 miles, and from the International boundary to Republic, Wash., 31.92 miles, opened for operation on Aug. 17, 1902; Vancouver, Victoria and Eastern Ry. and Navigation Co., from International boundary line at Rideau, B.C., to the boundary line near Carson, B.C., 14.40 miles, opened for operation on Aug. 17, 1902; a spur from the main line to Grand Forks, B.C., 1.89 miles, is under construction. The work of changing from narrow to standard the gauge of the Great Falls and Canada Ry. (now owned by the Montana and Great Northern Railway Company) from Great Falls to Sweet Grass, Mont., 134.37 miles, has been completed.

A short piece of line has been constructed connecting the lines of the G. N. Ry. at St. Vincent, Minn., with the Canadian Northern Ry. at Emerson, Man., and a traffic agreement has been entered into with the C. N. Ry. It is reported that connection will be made with the C. N. Ry. at other points on the Manitoulin border. (Nov., 1902, pg. 383.)

See also Alberta Ry. and Coal Co.; Canadian Northern Ry.

Halifax and South Western Ry.—With the exception of some minor deviations, notably at Liverpool and between Milton and Shelburne, now under consideration, the route for the H. and S. W. Ry. has been definitely settled. Commencing at a junction with the Intercolonial Ry., about one mile on the Halifax side of Bedford station, the line runs via near English Corner, to the head of St. Margaret's bay, and skirts the bay to Hubbard's cove, proceeding via Chester along the shore of Mahone bay to a junction with the Nova Scotia Central Ry., recently acquired by MacKenzie, Mann & Co. The N.S.C. line will be used to Bridgewater, and from this point the route to be followed will be cross-country to Mill village and to near Milton, then on to Shelburne and Barrington, where connection will be made with the Halifax and Yarmouth Ry. At Milton an alternative route is under consideration by which the line will run into Liverpool and will join the other survey about 14 miles north of Shelburne. L. H. Wheaton was, according to latest reports, engaged in revising location surveys between Mahone bay and Bedford, and A. Mitchell making alternate location surveys between Liverpool and Shelburne. There is a tramway in operation between Liverpool and Milton, and the location of the H. and S.W. Ry. in this section depends largely on whether this line will be acquired or not. The general character of the

NOTICE is hereby given that an application will be made to the Parliament of Canada at its next session for an Act to incorporate a Company to be known as "The Grand Trunk Pacific Railway Company," to construct and operate a line or lines of railway from a point at or near either Gravenhurst or North Bay in the Province of Ontario; thence in a north-westerly and westerly direction through the Provinces and Territories of Ontario, Keewatin, Manitoba, Saskatchewan, Alberta, Athabasca and British Columbia, or any other Province or Territory of British North America, to the Pacific Ocean at or near Port Simpson, or at or near Bute Inlet, or such other point as may be hereafter determined by way of the Peace River or Pine River Pass, or such other Pass as may be found most convenient, or by such other more feasible route as may be hereafter more clearly defined; with power to construct, equip and operate branch lines to Winnipeg, Regina, Calgary and any other point or points in the said Provinces or Territories, and to acquire, lease, amalgamate or connect with, or otherwise make arrangements for the use of the line of any railway company in Canada, with power to build, purchase or otherwise acquire and operate upon any navigable waters in any of the said Provinces or Territories, or from any point in the Dominion of Canada to any other point or points in or beyond the same, steam or other vessels and ferries for the purposes of the Company; to engage in and to carry on an express and forwarding business on the Company's railways and vessels; to purchase, lease or otherwise acquire land and water lots and thereon erect, maintain and use wharfs, docks, dock yards, elevators, warehouses, bridges, hotels, restaurants, houses and other buildings, terminals and properties, and collect wharfage, storage, and other dues and charges for the use thereof, to acquire and utilize any property, water powers, etc., for the purposes of the Company and for the production and supply of electricity for any use, and to sell and dispose of such water and electric power; to locate, acquire, work, develop and dispose of mines and mineral lands, timber and timber lands; to crush, smelt and otherwise treat and dispose of the ore and products of any mine, and to construct and use any buildings and works necessary therefor; to construct and operate tramways and other ways, and expropriate any lands required therefor; to construct and operate telegraph and telephone lines for the purposes of the Company's business and for public use, and to connect the same with any such lines already constructed; to acquire and dispose of any rights in letters patent, franchises or patent rights for the purposes of the Company's undertaking; to acquire lands for and to lay out, establish and control parks and pleasure resorts; to acquire and utilize lands in Canada or elsewhere for the purpose of the Company's undertakings and to dispose thereof when not required; to aid settlers upon lands served by the Company's railways; to mortgage, pledge or charge any of the assets and property of the Company; to issue, sell, pledge or otherwise dispose of from time to time, bonds, common and preferred stock, debentures or other securities of the Company; to receive from any Government, corporation, company or individual, lands, loans, gifts of money or securities for money or other benefit of any kind in aid of the Company's undertakings, and dispose thereof, to make arrangements with any Government or municipality respecting exemptions from taxation; to acquire, guarantee, pledge, sell or otherwise dispose of shares or other securities of any Government, corporation or company, and to enter into contracts with any Government, corporation, company or individual in respect of such bonds, shares or other securities, or in respect of the construction, acquisition, or operation of railways, steamship, telegraph or telephone lines, or any public or private improvements in any Province in Canada or elsewhere; together with all such other powers and privileges as may have been given to any company having like purposes in view, or as may be incident to or reasonably necessary for the successful carrying out of the undertaking contemplated.

Dated this 15th day of December, A.D. 1902.

JOHN BELL,
Solicitor for Applicant.

The Association of Railway Superintendents of Bridges and Buildings will hold its next convention at Quebec on Oct. 20. A. E. Kilham, Inspector of Bridges and Buildings, I. C. R. Moncton is Chairman of the local committee of arrangements.

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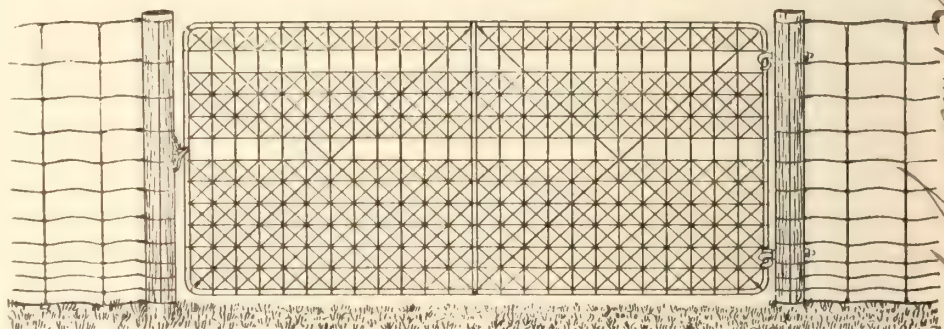
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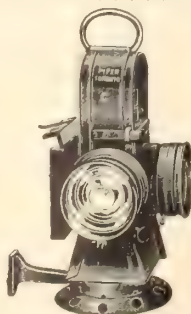
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work is rather heavy excavation in a rocky and rough country, very similar to that between Lake Superior and Manitoba. Grading operations were carried on during last fall on a 10-mile section of the line from the boundary line between Halifax and Lunenburg counties, easterly, by J. A. Wheaton. This work was put in hand in lieu of going on with grading for a similar distance from the junction with the I.C.R. near Bedford, easterly, the plans for which had not been approved of by the Government. (Nov., 1902, pg. 382.)

Hamilton and Caledonia Ry. (Electric).—Surveys are being made for the location of this projected line from Hamilton to Lake Erie at Selkirk, Ont., about 38 miles, by J. W. Tyrrell, C.E. It is intended to run the line from James St., south, through the south part of Hamilton going easterly, and then it will start ascending the mountain about Wellington st., running eastward to about Erie ave., then turning into Wentworth ave., along the Barton and Glanford road to the top of the mountain, which will be overcome by a 4% grade. At Caledonia the line will probably go under the G.T.R., and the Michigan Central Rd. will probably be crossed by an underground crossing near Dean's station. At Cayuga the Grand river will be crossed by the highway bridge, which will have to be widened and strengthened. The G.T.R. southern division tracks will be crossed at Cayuga by an overhead bridge. The line will follow the highway for the whole distance from Hamilton to Selkirk, except between Caledonia and Cayuga, where the river road will have to be departed from at several points to avoid the likelihood of damage caused by spring floods. Tenders will probably be asked for about Feb. At the Dec. session of the Wentworth county council, a right of way was given over the Barton and Glanford road in consideration of \$5,000 in the Co.'s stock. (Nov., 1902, pg. 382.)

The Hamilton Electric Light and Cataract Power Co., which controls the Hamilton street railway, the Hamilton Radial and the Hamilton and Dundas railways is making extensive additions to its power house in Hamilton. The new building is 50 by 140 ft., and the engines to be installed will develop 4,000 h.p. This additional power will be used to relieve the strain on the DeCew falls water-power supply station when the demand on it is heaviest.

Hamilton, Grimsby and Beamsville Ry.—It is proposed to take power from the Hamilton Electric Light and Cataract Power Co. at Grimsby for that end of the line.

It was expected that the extension of 4 miles to Vineland would be completed early in Dec., but some unforeseen delays occurred and it is now stated that the line will be finished early in Jan.

The Co. has, with the consent of the Beamsville council, moved the Gibson tramway from High st., to an old road allowance between Mountain st. and the intersection of King and Ontario sts. (Nov., 1902, pg. 382.)

Hamilton Radial Ry.—A spur about half a mile long is being constructed to connect with the new works being erected at Hamilton, Ont., for the International Harvester Co.

The Co.'s line now extends to Port Nelson, about 12 miles from Hamilton, and one mile beyond Burlington. It is expected that work will be commenced early in the spring to extend the line to Oakville about 11 miles further, where a junction will be made with the projected extension of the Toronto and Mimico Ry. (Feb., 1902, pg. 57.)

Hazleton to B.C. Boundary.—Application will be made next session of the B.C. Legislature for an act incorporating a company to construct railways from Hazleton to the northern boundary of B.C. via Teslin or Atlin

lake; from Hazleton to the eastern boundary of the province via the Peace River pass, the Pine River pass or both. Cornwall and Rogers, Victoria, B.C., are the solicitors.

Huntsville and Lake of Bays Ry.—Application will be made next session of the Ontario Legislature for an act extending the time within which the lines authorized may be constructed; or if necessary for the revival of the charter. The charter is owned by the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. (Ltd.) (Nov., 1902, pg. 382.)

Huron, Bruce and Grey Electric Ry.—The Goderich taxpayers have passed a by-law to take \$50,000 of stock in this Co., \$6,000 as each mile is completed, track to be laid to Smith's Hill before the last payment is made. Colborne township is being asked to subscribe \$25,000 in stock. It is said that as soon as this by-law is obtained construction will be proceeded with. (April, 1902, pg. 124.)

Temiskaming and Northern Ontario Ry.—It is expected that the number of men engaged in grading will be increased during the winter to 1,000. About 10 miles of track had been graded and was ready for track laying early in Dec., and it is expected that the first 35 miles, on which there is a great deal of rock work, will be completed during the winter. The next 15 miles is principally light work, and will not be gone on with until spring. It was expected to complete the work of location to the end of the 70th mile by the end of 1902; the work of locating the line for the remaining 40 miles will not be gone on with until the summer. The Commissioners have not yet come to any decision in reference to the location of the southern terminal of the line. A contract for 175,000 ties has been let to T. Wallace, of North Bay, and the Algoma Steel Co., Sault Ste. Marie, Ont., has been awarded the contract for 8,200 tons of 80 lbs. steel rails at \$32 a ton of 2,240 lbs. f.o.b. at North Bay, deliveries to be made one-third on May 15, June 15, and July 15 respectively.

The sub-contractors are as follows: mileage 1 to 6, Doughney and Donovan; mileage 6 to 10, Murdoch Bros.; mileage 10 to 12, J. Kirk; mileage 12 to 15, Polenzie and Curran; mileage 15 to 18, Westerdall and McDonald; mileage 18 to 21, J. Sherwood; mileage 21 to 23, Ryan and Carleson; mileage 23 to 25, W. C. Chambers; mileage 25 to 30 (not let); mileage 30 to 35, S. Swensen. (Nov. 1902, pg. 386.)

Grand Trunk Pacific Railway.

The formal notice that application will be made at the ensuing session of the Dominion Parliament in behalf of G.T.R. interests for an act incorporating the Grand Trunk Pacific Ry. Co., to construct a railway from Gravenhurst or North Bay, Ont., on the G.T.R. to the Pacific coast, appears on pg. 22 of this issue, from a perusal of which it will be seen that very extensive powers are asked, which, if granted, will put the Co. in a position to carry out the scheme on a scale commensurate with its importance.

As stated in our last issue, F. W. Morse, Third Vice-President, and W. Wainwright, General Assistant and Comptroller, left Montreal on a trip to the Pacific Coast, prior to the announcement of the intention to construct the line to the Pacific coast, and reached Winnipeg on the day when the announcement was made in Montreal. Their mission appears to have been to visit the chief places in the west and confirm the announcement in an official way and generally to look over the situation. From Winnipeg they visited Regina, Calgary, and Edmonton, and from Edmonton drove out about 50 miles in order to get an idea of the country to the north and

along the Saskatchewan Valley. In that district they found what Mr. Wainwright describes as "a perfect sea of uncultivated land." Vancouver and Victoria were also visited, and from thence Messrs. Morse and Wainwright went to Seattle, Tacoma, Portland and San Francisco, to obtain information respecting the steamship trade to China, Japan and Australasia, returning to Montreal via New Orleans, St. Louis and Chicago, making a trip of over 9,000 miles in about a month.

The route proposed to be followed is from either Gravenhurst or North Bay, north-westerly and westerly to the Pacific coast near Port Simpson or Bute Inlet, or any other point, via the Peace river pass, the Pine river pass, or any other pass, with branch lines to Winnipeg, Regina, Calgary or any other point. This gives the Co. a very wide latitude, but a more definite route will probably be outlined when the bill comes before Parliament, or will be decided upon in committee, where, whatever opposition on the part of the Canadian Northern Ry., the Trans-Canada Ry. or other companies holding charters to construct lines through portions of the country affected, may be expected to be fought out. At Victoria Mr. Morse is reported to have said it was the Co.'s intention to run north of the C.P.R. line all the way; that from the starting point in Ontario the line would run north to the height of land and then direct to Winnipeg. However that may be, survey parties will be placed in the field from North Bay, Winnipeg, Edmonton, and the coast, and construction will also be started simultaneously from a number of points. The time estimated for getting the line pushed through is about five years.

The position of Quebec in connection with the projected line is definitely brought before the country by the passing of a series of resolutions by the Quebec Board of Trade declaring that any new transcontinental line should traverse the country from ocean to ocean by the shortest possible route, that the location selected for the Atlantic terminal should compel the shipment of goods by Canadian ports, and that such new line should be located so as to benefit undeveloped portions of the country. The resolutions then point out that the projected line in connection with the existing G.T.R. system would not provide a shorter route than by existing lines reaching Quebec, that the tendency of the G.T.R. has been to develop trade in the direction of U.S. terminal ports, and that the route suggested for the Trans-Canada Ry. is the shortest. In conclusion, the resolutions set forth that the G.T. Pacific Ry. Co.'s plans do not commend themselves to the Board of Trade, and asks for assistance to the Trans-Canada Ry. in preference. Referring to a probable application for subsidies, the Minister of the Interior is reported to have said that the G.T. Pacific Ry. Co., or any other company applying for the same in respect of a transcontinental line would have to provide a terminus at a Canadian port, and export its freight through Canadian channels, and further that a Quebec port far enough east to be kept open all the year round, should be selected as the eastern terminal. C. M. Hays, Second Vice-President and General Manager, was interviewed upon this point, and stated that Quebec would not be left out by the Co.

Suggestions were made that the Co. would probably construct the line without Government aid, but Mr. Hays says that subsidies will be applied for in the usual way. He recently had a conference with some of the members of the Dominion Government, when it is not improbable that the matter of subsidies was discussed. The Minister of the Interior, discussing the matter of subsidies, is reported to have said that if there were any assistance given to the railway it would not take the form of land grants.

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C. P. R. LANDS.

The Canadian Pacific Railway lands consist of the odd-numbered sections along the Main Line and Branches, and in Northern Alberta and the Lake Dauphin District. The Railway Lands are for sale at the various agencies of the company in Manitoba and the North-West Territories at the following prices:

Lands in Manitoba and Assiniboia average \$3 to \$6 an acre.

Lands in Alberta and Saskatchewan with the exception of some special locations where prices range from \$4.50 to \$5.00 per acre, generally \$3.00 per acre.

TERMS OF PAYMENT.

In the case of an actual settler who goes into residence upon and cultivates the land, the aggregate amount of purchase money and interest is divided into ten instalments, as shown in the table below; the first to be paid at the time of purchase, the second two years from date of purchase, and the remainder annually thereafter.

160 acres at \$3.00 per acre, 1st instalment \$71.90, and nine equal instalments of \$60.
160 acres at \$3.50 per acre, 1st instalment \$83.90, and nine equal instalments of \$70.
160 acres at \$4.00 per acre, 1st instalment \$95.85, and nine equal instalments of \$80.
160 acres at \$4.50 per acre, 1st instalment \$107.85, and nine equal instalments of \$90.
160 acres at \$5.00 per acre, 1st instalment \$119.85, and nine equal instalments of \$100.
160 acres at \$5.50 per acre, 1st instalment \$131.80, and nine equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$143.80, and nine equal instalments of \$120.

Purchasers who do not undertake to go into residence on the land within one year from date of purchase are required to pay one-sixth of the purchase money down and the balance in five equal annual instalments with interest at the rate of six per cent. per annum.

DISCOUNT FOR CASH. If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. of the amount paid in excess of the usual cash instalment.

Interest at six per cent. will be charged on overdue instalments.

Write for maps and full particulars.

F. T. GRIFFIN, - Land Commissioner,
WINNIPEG.

Edward L. Drewry

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ELECTROTYPERS.
92 BAY ST.

As to the personnel of the Co., Jas. Ross, of Montreal, is reported to have said that neither he nor Senator Cox, of Toronto, are in it, but the fact that Mr. Cox met Messrs. Morse and Wainwright on their return east and remained with them while they were in Toronto, Dec. 22, is not without its significance. Jos. Price, 1st Vice-President of the G.T.R., stated in London, Eng., recently, that a syndicate was taking hold of the work, and that it would work in harmony with the G.T.R., but he was not at liberty to give the names of those composing it.

C.P.R. Western Construction.

W. Whyte, Assistant to the President, on his return to Winnipeg after a recent visit to Montreal, stated that there were to be heavy outlays in the building of new lines west of Winnipeg, with a view of opening up large sections of the Northwest Territories hitherto untouched by railways. Of the extensions in view the completion of the Manitoba and Northwestern Ry., and the construction of a number of branches therefrom, to connect with the Calgary and Edmonton Ry. at different points, or with branches to be constructed easterly by the Calgary and Edmonton Ry., is, perhaps, the most important. The M. and N.W. Ry. has been in operation from Portage la Prairie, Man., to Yorkton, Assa., 222.9 miles, for several years, and its powers to extend to Prince Albert, Sask., were kept alive from time to time. In 1902 work was commenced upon an extension from Yorkton, and during the season 50 miles were graded, and it was expected to have track laid on the whole of it by Dec. 30. From Yorkton the line parallels the White river, passes between the Yellow Quill Indian reserve and the Little Quill lake, beyond which construction has been carried for a short distance. Surveys for the extension of the line to Prince Albert were prosecuted during the fall of 1902, and we are advised that construction will be commenced as early as possible in the spring. The route surveyed is along the Quill plains, thence skirting the Pasquia hills, south of Waterhen lake, and Kinisteno, crossing the proposed route of the Canadian Northern Ry. line from Grand View westerly, in the vicinity of Dead Moose lake, thence through the Carrot river plains, along the valley of the Red Deer river, and into Prince Albert, but whether the final location will follow it or not has not been definitely decided.

Application will be made at the ensuing session of the Dominion Parliament for an act authorizing the construction of a branch line from the main line of the Manitoba and Northwestern Ry. between Yorkton, Assa., and Prince Albert, Sask., to Battleford, Sask., thence to Wetaskiwin, on the Calgary and Edmonton Ry.; and a branch from Churchbridge, southerly to a junction with the C.P.R. Pheasant Hills branch, near Esterhazy. Survey parties are reported to be traversing the country between the route of the line under construction to Prince Albert, and the Calgary and Edmonton Ry. with a view of locating the branch lines indicated. The several branches projected will open up a large area of country into which settlement has been directed of late. (Nov., 1902, pg. 379.)

The construction plans of the C.P.R. for the western division for 1903, decided upon by the management, are very comprehensive and include the carrying on of works which will open up a wide stretch of country hitherto undeveloped and without railway accommodation. The plans include the irrigation of about 2,500,000 acres between Medicine Hat and Calgary; the reduction of gradients, the extension of sidings, and the building of new lines into the country from various points. The thing to do, said W. Whyte, Assistant to the President, in a recent interview, is to an-

ticipate the needs of the settler, who will not come into the country in large numbers until railway facilities are provided. The C.P.R. has always had its thought directed to the increase of facilities in the Northwest Territories, and the opening up of every portion of the country which promised a future for fresh populations. The recent visit of E. H. McHenry, Chief Engineer, to Manitoba and the N.W.T., was in connection with the plans for the work proposed to be carried out during the season of 1903. In connection with these plans Mr. McHenry said there would be considerable double-tracking in the west, and that the new lines west of Winnipeg would be pushed forward with activity.

The Calgary and Edmonton Ry. Co. has given notice of application to Parliament for an act to authorize the construction of the following lines:—a branch from Wetaskiwin, on its main line, easterly for 100 miles; a branch from between Lacombe and Red Deer, on its main line, easterly 100 miles, a line from Strathcona, the present terminus of its railway, to Edmonton; a branch from or near Edmonton north or northwesterly for 100 miles.

Canadian Northern Railway.

D. D. Mann, in the course of a recent speech at Edmonton, stated that the Canadian Northern Ry. would not sell out to the G.T.R., as was suggested. It had been said at one time that the C.N.R. was the agent of the C.P.R., and would sell out to that Co. That event had not happened yet, and it was not the intention to sell out to the G.T.R. either. There was room enough for both the C.N.R. and the G.T.R. in the new country that would be opened up. In regard to the future of the C.N.R., its operations would be much slower if it was not given subsidies, but according to present plans it was expected to reach Edmonton in the fall of 1904. The surveys had been completed and the plans showed a maximum gradient of 1%, or 52 ft. to the mile going west, and a maximum gradient of 1/2%, or 26 ft. to the mile going east, as between Port Arthur and Edmonton. These were the easiest grades on the continent and would enable the C.N.R., with its low bonded indebtedness, to haul grain more cheaply than any other road in western Canada. As to route by which the line would enter Edmonton, Mr. Mann is reported to have said in an interview at Winnipeg, it would be by the Grand View extension, as well as by the Erwood extension to Prince Albert, the two lines meeting about midway between Edmonton and Winnipeg.

Transportation Appointments, Etc.

Following are appointments which have been announced since the list on page 11 went to press:—

Canadian Northern Ry.—A. R. Greig, formerly of the Canada Atlantic Ry., has been appointed draftsman in the C.N.R. mechanical department at Winnipeg.

Canadian Pacific Ry.—F. S. Darling has been appointed Division Engineer of Construction on all lines east of Winnipeg, vice A. C. Dennis resigned. He will report to the Assistant Chief Engineer. Office, Montreal.

C. N. Monsarrat has been appointed Engineer of Bridges, vice H. E. Vautelet, resigned.

Grand Trunk Ry.—F. R. Porter, heretofore Travelling Freight Agent at Hamilton, Ont., has been appointed Assistant Foreign Freight Agent at Toronto, vice D. O. Wood, resigned to enter the Robt. Reford Co.'s service.

F. J. Henstridge, heretofore Travelling Freight Agent on the eastern division, has been appointed Travelling Freight Agent at

Hamilton, Ont., succeeding F. R. Porter, promoted.

Halifax and Southwestern Ry.—J. D. Morton has been appointed Accountant and Paymaster at Bridgewater, N.S.

Illinois Central Rd.—A. J. McDougall, heretofore General Eastern Passenger Agent at New York, whose jurisdiction included Canada, has been appointed Division Passenger Agent at New Orleans, La.

Intercolonial Ry.—Thos. Dunning, of St. John, N.B., has been appointed Cashier, vice C. D. Thompson, deceased.

The Robt. Reford Co., Ltd.—D. O. Wood, heretofore Assistant Foreign Freight Agent of the G.T.R. at Toronto, has been appointed Western Agent for the Robt. Reford Co., Ltd., Montreal, Canadian agents for the Donaldson, Thompson and Lord steamship lines. Office, Toronto. Mr. Wood succeeds J. D. Riddell, who was located at Stratford, Ont., and died there recently.

White Pass and Yukon Route.—The general offices of the White Pass and Yukon Route will be removed from Seattle, Wash., and located in the MacKinnon Building, Vancouver, B.C., on Jan. 1, 1903.

J. F. Lee, Traffic Manager, having resigned, all communications regarding traffic, etc., should, until his successor is appointed, be addressed to "Traffic Department, W.P. and Y.R., Vancouver, B.C."

H. Weig, heretofore Passenger and Freight Agent, has been appointed General Agent, with office at 1016 Chamber of Commerce Building, Chicago, Ill.

S. P. Brown, heretofore Travelling Freight and Passenger Agent, has been appointed General Agent, with office at 30 Dexter Horton Building, Seattle, Wash.

C.P.R. Employees' Wages Advanced.

The C.P.R. conductors, trainmen and yardmen, east of Fort William, have had their wages advanced, the advances reaching well up to 15 per cent. The increases were granted by the Co. after six weeks' negotiations with a joint committee of the Order of Railway Conductors and the Brotherhood of Railroad Trainmen. Passenger conductors north of Lake Superior will receive \$125 a month, instead of \$108; on lines east of the lake they are increased from \$100 a month to \$110 and \$115. Passenger conductors on branch lines will be paid \$90 instead of \$80 a month. Through freight conductors who were paid \$2.70 per 100 miles will receive \$2.90. Through freight brakemen are increased 8 cts. per 100 miles, making the rate \$1.95. The increase on way freight trains is about 10% all round. Baggage men receive 8% advance. Their wages will range from \$53 to \$70 a month. Yardmen's wages are advanced about 15%. In the larger yards foremen will receive 25c. an hour and others 21c. In the smaller yards the rates will be 23 and 29c. Roughly estimated the advances granted mean about \$250,000 a year to the Co.

Niagara Navigation Co.'s Report.

The report for the year ended Nov. 30, 1902, presented at the adjourned annual meeting Dec. 17, states that the result of the season's work was satisfactory, considering the cold, wet weather which prevailed in the early part of the season, and which caused so much loss to summer resorts and to many steamers engaged in the excursion and tourist business. The receipts for 1902 were the largest in the history of the line, with the exception of 1901, the year of the Pan-American Exposition, but the expenses were also large, owing to the increased price of coal and labor and the cost of docking the Chippewa and the

Corona at Kingston dry-dock. Two half-yearly dividends of 4% were declared for the year. The financial statements were as follows:—

ASSETS.

Steamers Chippewa, Corona, Chicora and On-giara	\$707,500.00
Real estate, wharves, etc.	52,725.51
Stores on hand	1,940.00
Accounts receivable	3,209.01
Cash on hand and in bank	51,731.69
	\$817,106.21

LIABILITIES.

Capital stock subscribed and paid-up.	\$605,000.00
Debentures at 1%	111,000.00
Interest accrued on same	2,081.21
Accounts payable	1,813.45
Dividend 4%, payable Jan. 2, 1903.	24,200.00
Balance carried forward	72,981.51
	\$817,106.21

PROFIT AND LOSS ACCOUNT.

Balance from previous years	\$ 74,217.88
Net earnings from all sources	52,158.63
	\$126,376.51

Interest on debentures, 12 months to Nov. 30, 1902	\$ 4,095.00
Dividend 4%, paid July 2, 1902.	24,200.00
payable Jan. 3, 1903	24,200.00
Balance carried forward	72,981.51
	\$126,376.51

In 1901 the Pan-American year the net earnings were \$100,294.21.

The officers elected for the current year are:—President, James J. Foy, K.C.; General Manager, John Foy; Auditor, R. H. McBride; other directors, Barlow Cumberland, W. Hendrie, J. B. Macdonald, E. B. Osler.

Prior to the annual meeting Jno. Foy tendered his resignation as General Manager on account of ill-health, but no action was taken on it by the directors, who are anxious for him to remain, at least for some time.

RAILWAY FINANCE, MEETINGS, ETC.

Alberta Ry. and Coal Co.—Application will be made at the next session of the Dominion Parliament for an act empowering the Co. to lease or amalgamate with the St. Mary's River Ry. Co. The St. M. R. Ry. extends from Sterling on the A. Ry. and Coal Co.'s line to Spring Coulee, Alta., 30 miles.

British Columbia Electric Ry. Co.—Earnings and expenses for Oct., 1902:—

	1902.	1901.	Increase or Decrease.
GROSS EARNINGS.			
Railway—Vancouver division	\$10,308	\$12,420	\$2,112+
Victoria	11,086	10,410	676+
Westminster	11,539	12,809	2,269+
Lighting—Vancouver division	14,208	17,125	2,917+
Victoria	7,941	8,734	793+
	55,073	62,527	7,454+
Less Working expenses	30,625	36,121	5,496+
	24,448	26,406	1,958+

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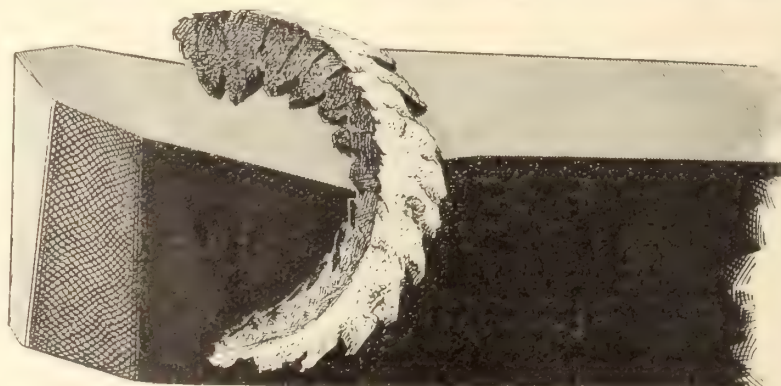
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BOOKBINDING

GROSS EARNINGS.	1901.	1902.	Increase or Decrease.
Renewal funds.....	3,458	4,222	764 +
Net income.....	20,990	22,184	1,194 +
Gross earnings, July 1 to Oct. 31.....	193,469	217,684	24,215 +
Net earnings, July 1 to Oct. 31.	\$68,789	\$73,134	\$4,345 +

The Brockville, Westport and Sault Ste. Marie Ry., extending from Brockville to Westport, Ont., about 45 miles, with its rolling stock, etc., is to be sold by auction at Brockville, Jan. 20, at the instance of the Knickerbocker Trust Co., of New York, trustee for the bondholders. The proceedings initiated by C. N. Armstrong, will, it is claimed, have no effect on the sale. (Dec., 1902, pg. 407.)

Calgary and Edmonton Ry.—Net earnings for Oct., \$20,563.28 against \$14,576.61 for Oct., 1901. Net earnings for 10 months ended Oct. 30, \$224,868.24 against \$138,928.21 for same period 1901.

It is reported that about three-fourths of the total issue of bonds have been deposited with the bondholders' committee in London, Eng., recently appointed to make arrangements in regard to the future of the line. The Stock Exchange committee has directed that the deposit certificates in respect of \$640,000 of these 6% bonds be quoted in the official list in lieu of the bonds now quoted. It is stated that negotiations are in progress with a view of the line being acquired from the bondholders, and it is expected that the C.P.R. Co. will secure it. (Dec. 1902, pg. 429.)

Canada Eastern Ry.—The papers asking for the incorporation of the new company to take over the business of the Alex. Gibson Ry. and Manufacturing Co. have been completed, and application is being made for a New Brunswick charter. The provisional directors will be Alex. Gibson, sr.; Alex. Gibson, M.P., of Marysville, N.B.; J. F. Stairs, G. Stairs, and R. E. Harris, of Halifax, N.S. The name of the new company will be Alexander Gibson, Limited, and its chief place of business will be Marysville, N.B. (Dec., 1902, pg. 411.)

Canadian Northern Ry.—Gross receipts are as follows:—

	1902.	1901.	Increase.
July.....	\$132,300	\$ 87,200	\$45,100
Aug.....	130,900	97,000	33,900
Sept.....	209,300	103,300	106,000
Oct.....	190,200	120,610	69,590
	\$662,700	\$408,110	\$254,590

The gross earnings in Oct., 1902, were \$152.76 a mile, against \$145.66 in Oct., 1901.

The net earnings were: July, \$50,723; Aug., \$50,376; Sept., \$69,285; Oct., \$83,800. Total, \$254,184. The Pond interest for the same period was \$202,880, leaving \$51,304 surplus.

A deed of mortgage securing the issue of second mortgage bonds was given to the National Trust Co., Nov. 1, 1902, and a copy has been filed with the Secretary of State at Ottawa.

Canadian Pacific Ry.—Notice is given that application will be made at the ensuing session of the Dominion Parliament authorizing the Co. to issue consolidated debenture stock in lieu of bonds, in respect of the Pheasant hills branch, and other branch lines, such stock ranking pari passu with the consolidated debenture stock issued or authorized under other of the Co.'s acts.

Cape Breton Ry.—M. E. Evans, President, and others who are interested in the reorganization of the Dominion Securities Co., New York, which issued the bonds of the C.B.Ry. Co., have returned to New York from in-

specting the line, and report that the plan of reorganization will be announced shortly. (Dec., 1902, pg. 408.)

Central Ontario Ry.—Application will be made at the next session of the Dominion Parliament for an act re-arranging the bonded indebtedness of the railway, vesting the voting power in the bondholders instead of the shareholders, authorizing the sale of the line, and incorporating the purchasers as the Central Ontario Ry. Co. (Dec., 1902, pg. 408.)

Chateauguay and Northern Ry.—A certified copy of the sale and conveyance from the Montreal Terminal Ry. of certain properties to the C. and N. Ry. Co. has been deposited with the Secretary of State at Ottawa.

A special meeting of the shareholders was called for Dec. 22 for the purpose of authorizing the issue of bonds on the security of a mortgage of the line to be constructed, etc., to authorize the issue of paid-up shares, and to confirm a number of sales, purchases, contracts and agreements.

Dominion Atlantic Ry.—Gross earnings for Oct., 1902, \$97,600, against \$104,016 for Oct., 1901; making for 10 months ended Oct. 30, 1902, \$854,000, against \$859,272 for same period 1901.

Elgin and Havelock Ry.—The contract for the sale of this line was arranged with Harris, Henry and Cahon, solicitors, Halifax, N.S., who also acted for the interests of the N.S. capitalists interested in the purchase of the Canada Eastern Ry. and the other Gibson properties in N.B. (Dec., 1902, pg. 409.)

Esquimalt and Nanaimo Ry.—The following were elected at the annual meeting recently held: President, J. Dunsmuir; Vice-President, J. Hunter; Treasurer, A. Lindsay; Secretary, C. E. Pooley. Other director, F. D. Little. R. W. Dunsmuir, formerly Treasurer, and G. Crocker, of San Francisco, Cal., have retired, their places being filled by A. Lindsay and C. E. Pooley, the latter of whom previously acted as Secretary, but was not on the board.

Great Northern Ry. of Canada.—At the annual meeting recently held the following were elected: President, Hon. P. Garneau; 1st Vice-President, J. McNaught, New York; 2nd Vice-President, H. H. Melville, Boston; 3rd Vice-President, V. Chateaufort; General Manager, J. G. Scott; Treasurer, E. E. Ling; other directors, Hon. J. Tessier, Hon. S. N. Parent, J. T. Ross, W. L. Bull, New York; H. E. Mitchell, Philadelphia; and J. Joyce, Boston; Secretary, L. G. Scott.

At a special meeting subsequently held, a resolution ratifying the agreement to purchase the Montford and Gatineau Colonization Ry., was passed. (Dec., 1902, pg. 409.)

Halifax Electric Tramway Co.—Gross receipts from railway:

	1902.	1901.	Increase or Decrease.
Jan.....	\$10,674.58	\$9,543.14	\$1,131.44 +
Feb.....	8,408.39	8,042.11	366.28 +
Mar.....	9,761.57	9,448.32	313.25 +
Apr.....	10,025.66	9,370.08	655.58 +
May.....	11,126.66	9,467.15	1,659.51 +
June.....	11,528.19	11,339.52	188.67 +
July.....	14,834.69	14,203.82	630.87 +
Aug.....	17,177.12	16,330.23	846.89 +
Sept.....	17,404.21	16,547.68	856.53 +
Oct.....	11,382.25	12,581.23	1,198.98 -
Nov.....	9,945.68	9,675.33	270.35 +
	\$122,359.00	\$116,584.41	\$5,874.59 +

Intercolonial Ry.—Operations for year ended June 30, 1902.

	1902.	1901.	Increase or Decrease.
Passenger receipts.....	\$1,770,941	\$1,607,166.79	\$163,774.21 +
Freight.....	3,044,512	3,121,006.15	76,494.13 -
Mails and sundries.....	255,932	244,062.93	11,869.29 +
	\$5,071,385	\$4,972,235.87	\$99,149.52 +
Working expenses.....	5,574,593	5,460,421.10	114,171.90 +
Balance.....	\$ 96,822 +	\$488,186.77 -	\$391,364.77 +
+ Surplus. - Deficit.			

In connection with the above statement the Minister of Railways, Mr. Blair, says:—“The business of the I.C.R. has, during the past five years, been growing with very great rapidity; the increase has been in the neighbourhood sometimes of a little over \$500,000 a year, as nearly as I can state it, and I think, after I shall have completed the improvements which I have in contemplation and have entered upon, the Intercolonial will establish its capacity to do business at a profit. It is a large scheme to re-construct and re-organize the whole line, almost like building a new road, and takes time and, I need not add, money. I think that five years of progressive action, such as has been taken, with such necessary and proper extensions as might be adopted, will make the I.C.R. one of the best paying roads in the Dominion.”

Lake Erie and Detroit River Ry.—The Michigan Central Rd. has issued a writ against the L.E. and D.R. Ry. Co. to recover \$140.84 said to be due for running its trains over the M.C.R. tracks.

London, Ont., Street Ry.—Traffic receipts:

	1902.	1901.	Increase or Decrease.
Jan.....	\$ 9,980.93	\$ 9,255.74	\$ 725.19 +
Feb.....	8,740.45	8,145.76	594.69 +
Mar.....	10,108.54	9,294.54	814.00 +
Apr.....	9,646.42	9,495.68	150.74 +
May.....	11,970.88	10,003.16	1,967.72 +
June.....	12,819.56	13,917.23	1,097.67 -
July.....	15,215.04	14,241.13	973.91 +
Aug.....	14,768.20	14,958.55	190.35 -
Sept.....	17,784.19	14,612.46	3,171.73 +
Oct.....	11,645.46	10,104.69	1,540.77 +
Nov.....	12,355.65	12,084.23	271.42 +
	\$135,935.32	\$126,113.88	\$ 9,821.44 +

There was one working day less in 1902 than in 1901 during Nov.

Montreal Street Ry.—Earnings and expenses, Oct., 1902:

	1902.	1901.	Increase.
Passenger earnings.....	\$179,432.86	\$164,174.56	\$15,258.30
Miscellaneous earnings.....	1,972.77	1,886.08	86.69
Total earnings.....	181,405.63	166,060.64	15,344.99
Operating expenses.....	96,428.92	85,210.49	11,208.43
Net earnings.....	84,986.71	80,850.15	4,136.56
Fixed charges.....	15,991.62	15,383.84	607.78
Surplus.....	68,995.09	65,466.31	3,528.78
Expenses % of car earnings.....	53.74	51.90	1.84
Interest on M.P. & I. Ry. Co.'s bonds owned by this Co. not included.			

New York and Ottawa Rd.—The order of the court directing the sale of this line, which connects at Cornwall, Ont., with the Ottawa and New York Ry., has been appealed against, and the sale, which was fixed for Nov. 30, 1902, did not take place. (Oct., 1902, pg. 339.)

Ottawa, Northern and Western Ry.—A mortgage has been given to the Royal Trust Co. to secure an issue of bonds for the purpose of retiring the bonds issued by the Ottawa and Gatineau Valley Ry. Co., and the Pontiac Pacific Jct. Ry. Co., prior to their amalgamation as the O. N. and W. Ry., and to provide for the extension from Gracefield to Maniwaki, Que. A separate mortgage has also been given to the Royal Trust Co. on the Interprovincial bridge and approaches to secure an issue of bonds in respect thereof. The signing of these mortgages was authorized at a special meeting recently held, and copies of the same have been deposited with the Secretary of State at Ottawa.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net loss for Oct., 1902, \$330.06, against net earnings of \$1,257.98 for Oct., 1901. Net earnings for 11 months ended Oct. 31, 1902, \$63,066.95; against \$5,929.93 for same period 1901.

Quebec Bridge Co.—At a meeting of directors held Dec. 5, a deputation was appointed

to go to New York with authority to arrange for the issue of the Co.'s bonds.

Quebec Central Ry.—Gross earnings for Oct., 1902, \$58,160.24; working expenses, \$41,493.93; net earnings, \$16,666.31, against \$52,993.48 gross and \$15,838.11 net for Oct., 1891. Gross earnings for 10 months ended Oct. 30, 1902, \$567,007.91; net earnings, \$184,528.82, against \$534,217.36 gross and \$180,546.32 net for same period 1901.

Quebec and Lake St. John Ry.—Gross earnings for Sept., 1902, \$39,300, against \$37,000 for Sept., 1901; making for 9 months ended Sept. 30, 1902, \$302,945, against \$267,571 for same period 1901.

Quebec Southern Ry.—Officials of the First National Bank of New York city state that it has not bought this railway, either for Dr. W. Seward Webb, or for anyone else.

Sherbrooke St. Ry.—At the annual meeting, held Dec. 3, the following were elected: President: J. W. Burke, New York; Vice-President, P. W. Clement, Rutland, Vt.; other directors: E. Harding, Boston, Mass.; S. L. Clough, Lennoxville, and Dr. P. Pelletier, M.L.A.

St. John Ry.—A dividend of 3% for the half year ended Oct. 31 was paid Dec. 17.

The St. Thomas St. Ry. is being operated by the city council, the Treasurer and Engineer being given authority to purchase supplies and make necessary repairs, etc. Power was also given the Mayor and Treasurer to borrow \$3,000 for street railway purposes. (Dec., 1902, pg. 411.)

Temiscouata Ry.—At the annual meeting, held in Quebec Dec. 2, the following were elected: President, F. Grundy; Vice-President, J. H. Walsh; other directors: A. Steele; W. Cook, K.C.; A. H. Cook, K.C.; A. Laurie and N. Campbell; Secretary and General Manager, D. B. Lindsay; Engineer and Superintendent, G. G. Grundy. The report of the Secretary and General Manager upon the operations for the year ended June 30, 1902, showed an increase of \$30,125 in the receipts over 1901, and of \$47,789 over those for 1900 when the line passed under control of the bondholders. The expenditure showed an increase of \$12,237 over 1901, and the percentage of working expenses was at the rate of \$78.50 in 1902 as compared with \$90.45 in 1901, a reduction of \$11.95%. No serious accident occurred during the year either to persons or property, and the prospects of the line were considered good. The Engineer and Superintendent submitted reports upon the state of the track and the rolling stock which were considered satisfactory.

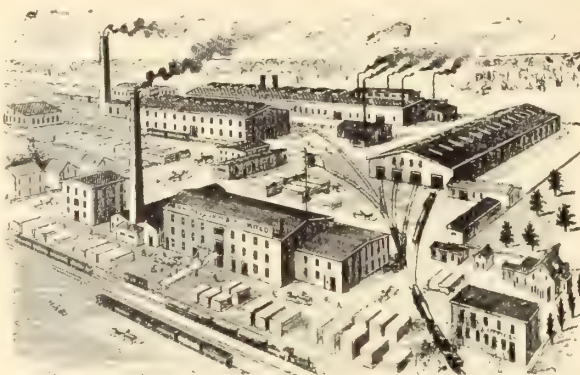
Temiskaming and Northern Ontario Ry.—The commissioners propose, with the approval of the Provincial Treasurer, to issue debentures for the purpose of providing funds for the construction of the line, the debentures to be a charge on the line and the land, 20,000 acres a mile, set apart by the Legislature for its construction. The Ontario Premier stated that the Government has no intention of selling the line to the G.T.R., in order that it might form part of the new G.T. Pacific Ry., as had been suggested in press reports.

NOTICE.—The Great North West Central Railway Company will apply to the Parliament of Canada, at its next session, for the passing of an Act extending the time within which it may finish the construction of its railway.

By order of the Board,

H. CAMPBELL OSWALD,
Secretary.

Montreal, 17th November, 1902.



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Engineers, Grain Elevator Builders,
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Burlington Elevator, St. Louis, Mo.	Capacity	1,300,000 Bushels
Grand Trunk Elevators, No. 1 and No. 3, Portland, Me.	"	2,500,000 "
Export Elevator, Buffalo, N.Y.	"	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario	"	1,000,000 "
Cleveland Elevator Company's Elevator, Cleveland, O.	"	500,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
Union Elevator, East St. Louis, Ill.	"	1,100,000 "
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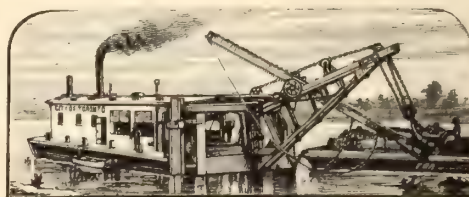
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Toronto Railway Co.—Car earnings compared with previous year:—

	1902.	Increase or Decrease
January	\$137,135.21	\$15,478.01+
February	127,981.01	18,468.50+
March	141,681.22	17,182.23+
April	132,946.56	9,940.56+
May	145,595.54	17,634.60+
June	132,265.85	5,888.74
July	162,472.12	12,840.88+
August	165,164.57	11,683.95+
September	196,010.37	35,578.48+
October	155,150.17	2,636.66+
November	151,032.84	20,416.78+
	\$1,647,435.46	\$155,972.82+

The Co. has increased its capital stock by \$1,000,000, and has offered \$600,000 of the same at par among shareholders on record on Dec. 3, 1902, in the proportion of one share for every 10 shares of stock held. Payments of 10% a month extend up to Sept., 1903.

A dividend of 1¼% for the quarter ended Dec. 31, 1902, was declared payable Jan. 2, to shareholders of record of Dec. 16.

Toronto, Hamilton and Buffalo Ry.—Earnings for Nov., 1902, \$40,414.34 against \$39,924.21 for Nov., 1901, making for six months ended Nov. 30, 1902, \$216,995.59 against \$243,099.05 for same period 1901.

White Pass and Yukon Ry.—Gross receipts for Oct., 1902, \$204,000, making for five months to Oct. 31, \$1,100,155. Receipts Nov. 1 to Nov. 14, \$10,381.

Grain Elevator Notes.

The Ogilvie Flour Mills Co. have agreed to erect a 500,000 bush. elevator at Fort William, Ont., and in connection therewith operate a flour mill to have a capacity of 1,500 barrels a day. The elevator will be erected in the spring.

The H. D. Metcalfe Co. (Ltd.), has been incorporated under the Dominion Companies' Act, with a capital of \$100,000, to deal in grain, and in connection therewith to build, or acquire by lease or otherwise, elevators, wharves and vessels. H. D. Metcalfe, C. P. Metcalfe, J. E. Riley, Jr., and H. H. Snowden, of Montreal are the provisional directors.

A. St. Laurent, engineer in charge of the erection of the elevator for the Harbor Commissioners at Montreal, reports that the construction is proceeding satisfactorily. A number of the steel tanks have been erected. They are 85 ft. in height above the concrete base, and each has a capacity of 24,000 bush. There will be 36 of these steel tanks, and the spaces between them will also be used for storage purposes.

SHIPPING MATTERS.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:—

No. 106. Nov. 10—Ontario—351. Lake Erie, Port Colborne, light changed, improvements in harbor. 352. Georgian bay, Parry Sound, Depot harbor, breakwater under construction, marking buoys placed.

No. 107. Nov. 11—Nova Scotia—353. Cape Breton, west coast, Port Hood, Henry island, light established. 354. South coast, Cape Sable, light changed.

No. 108. Nov. 11—Ontario—358. River St. Lawrence, St. Regis dyke, changes in lights and buoys, sailing directions.

No. 109. Nov. 13—Ontario—359. River St. Lawrence above Prescott, removal of wreck. 360. Georgian bay, east side, approach to Parry Sound, Seguin bank, gas buoy removed, spar buoy placed.

No. 110. No. 14—Quebec—361. River St. Lawrence ship channel, Varennes traverse, Ile à l'Aigle, range lights replace day beacons. 362. River St. Lawrence ship channel,

Ile Ste. Thérèse channel, and Ile aux Vaches traverse, changes in buoyage.

No. 111. Nov. 19—Nova Scotia—363. Bay of Fundy, Chignecto channel, Apple river lighthouse, Capstan or Hetty point, change in character of illuminating apparatus. 364. Halifax harbor, position of inner automatic buoy. 365. Cape Breton, south coast, Petit-degrat lighthouse, change in character of illuminating apparatus.

No. 112. Nov. 24—British Columbia—366. Burrard Inlet, Point Atkinson, fog signal intervals. 367. Burrard Inlet, Vancouver harbor, Brocton point, fog bell intervals. 368. Seaforth channel, uncharted rock. 369. Seaforth channel, beacon marking Regatta rock. 370. Seaforth channel, beacon erected on White Stone. 371. Lama passage, new Indian village of Bella Bella, position of wharf, hydrographic notes. 372. Lama passage, non-existence of charted rock. 373. Lama passage, beacon on White point to mark Walbran rock. 374. Seaforth channel, Joassa passage, hydrographic note.

No. 113. Dec. 2—Ontario Lighthouse division—375. County of Vaudreuil, lake St. Louis, Soulanges canal, lower entrance, aids to navigation. 376. Lake Ontario, Port Credit, sand bar reported.

No. 114. Dec. 3—Nova Scotia—378. Cape Breton, Louisburg harbor, buoyage. 379. Atlantic ocean, Sable island bank, uncharted rock. Newfoundland—380. East coast, Cape Spear, fog alarm.

The following notices have been issued by the U.S. Hydrographic department:—

No. 47. Nov. 22—Lake Superior—1812. Apostle Island group, shoal reported off York Island, Lake Michigan. 1815. Strait of Mackinac, Wagonchance point, new shoal reported.

C.P. Navigation Co.'s Steamer.

The steamer being built at Wallsend-on-Tyne, Eng., for the C.P. Navigation Co., for the Vancouver-Victoria run, was launched Nov. 18, and was christened Princess Victoria by Mrs. Archer Baker, wife of the European Traffic Manager of the C.P.R. The Princess Victoria is a steel twin-screw steamer having the following dimensions: length between perpendiculars, 300 ft.; extreme breadth, 40 ft. 6 in.; moulded depth, 18 ft. 6 in.; and is built to the highest class of the British corporation. She is constructed with cellular double bottom, with additional watertight flats, and a number of additional watertight compartments, which make the vessel practically unsinkable. The Princess Victoria is fitted with three smoke stacks, and has two pole masts. The motive power consists of two sets of triple expansion engines, working on four cranks, balanced; cylinders 24, 40, 43½ and 43½ in., with a stroke of 33 in.; to which steam will be supplied by six single-ended boilers, each 15 ft. by 11 ft. long, working at a pressure of 160 lbs. a square inch. A modified force draught will be fitted. The engines are expected to develop 5,500 h.p., and to drive the vessel at a speed of 18 knots an hour. The internal arrangements of the steamer have been so arranged as to economise space, while at the same time giving every possible space and accommodation for passengers and crew. On the upper deck aft is a large deck house containing the dining saloon, with seating accommodation for 90 saloon passengers, and also the galley and pantry. From the after end of the engine casing to the stem the plating is carried up to the hurricane deck, and in this space, at the after end, are the rooms for the engineers, petty officers, etc., whilst forward the space is reserved for second class passengers. On the hurricane deck is placed a large house almost the whole width of the vessel and 245 ft. in length, at the sides of which are the state

rooms for the first-class passengers. The space between these cabins is fitted up as a sitting-room, access being obtained to the dining saloon below by a commodious staircase aft of the engine-room. At the forward end of this house a good space is reserved for the second class entrance and smoke room. At the forward end of this house also is the main staircase for first-class passengers to gain access to the deck above. This deck has a large opening, which gives the sitting-room below a very lofty and handsome appearance. The house on this deck extends for a length of 170 ft., and is arranged on the same principle as the house below it, with state rooms at the sides and sitting-room between. At the after end there is a comfortable smoking room, whilst the space at the forward end will be fitted as an observation room with large square windows. The Princess Victoria was built under the superintendence of J. B. Cousins, of Glasgow, Scotland, acting for the C.P. Navigation Co. T. G. Mitchell, Chief Engineer of the Co.'s str. Charmer, is superintending the installing of the engines, and it is expected that the Princess Victoria will reach Vancouver early in spring.

Maritime Provinces and Newfoundland.

The str. Dolphin, of Central Chebogue, has been sold to Roberts & Lee, of Halifax, N.S.

The past season of navigation on the St. John river, N.B., extended over seven months, establishing a record.

The steamship service hitherto maintained by the Reid Newfoundland Co. to St. Pierre, Miquelon, has been withdrawn.

The Fredericton Boom Co. has had built a 60 ft. steamer, the Latonia, at St. Mary's, N.B. She is fitted with compound engines, and can steam 13 miles an hour.

The Princess Steamboat Co.'s new steamer the Queen, of Montreal, has been laid up at Quebec for the winter, the owners declining to take the risk of taking her down to St. John, N.B., so late in the season.

The str. Pro Patria has been purchased by J. Legasse & Co., St. Pierre, Miquelon, and was placed on a run between St. Pierre and Halifax early in Dec. She has a subsidy from the French Government for carrying mails.

The Insular Steamship Co. has placed an order at Shelburne, N.S., for the hull of a steamer to replace the Westport on the St. John-Yarmouth run, her dimensions being: length of keel, 88 ft.; over all, 108 ft.; breadth, 21 ft.; depth of hold, 9 ft.

The Dominion Coal Co. has chartered six additional steamers for its coal-carrying fleet, and will employ an ice plough to break up ice in Louisburg harbor, so as to be able to continue shipping coal all through the winter. The fleet now comprises 16 steamers, having a total tonnage of 83,500 tons.

The sidewheel str. Jacques Cartier, owned by the Inland Navigation Co., Charlottetown, P.E.I., lost her rudder during a heavy gale, and went ashore at Cape John, Nov. 29, while on a trip from Charlottetown to Crapaud. The Jacques Cartier was built at Levis, 1888, and had the following dimensions: length, 117.6 ft.; breadth, 23 ft.; depth, 7.4 ft.; tonnage, gross 380, net 239. For the last ten years she has been on the Charlottetown-Orwell-Crapaud run.

The People's Line Steamship Co. has purchased the sidewheel str. Crystal Stream for its Washademoak route. The Crystal Stream was formerly the Nelson P. Hopkins, and was built at Bull's Ferry, N.J., 1873, and has the following dimensions: length, 132 ft.; breadth, 25 ft.; depth, 9 ft. 3 in.; tonnage—gross, 268; register, 167. She is fitted with

a 1 cylinder vertical beam engine 34x96. The price paid is understood to be about \$9,000, the principal value being in the hull. Extensive repairs will be made during the winter.

Province of Quebec Shipping.

The affairs of the Montreal Coal and Towing Co. are being wound up in liquidation, G. H. Savage, of Montreal, having charge.

The Leyland liner Iberian, which ran ashore on Red island reef early in Nov., will be repaired in the Levis dry-dock during the winter.

An estimate of the loss to the underwriters

by stranding of steamers in the St. Lawrence during the past season places it at \$500,000 on hulls and \$400,000 on cargoes.

For the season of navigation of 1902, closed Dec. 1, there arrived in Montreal 757 oversea vessels, having a tonnage of 1,453,048 tons, an increase of 15 vessels and 75,000 tons over 1901.

The Dominion Government has made arrangements for a steamship service between New Carlisle and Gaspe Basin, with a view of testing the practicability of the winter navigation in the Baie des Chaleurs.

An investigation in Liverpool Eng., into the stranding of the Elder-Dempster str.

Monteagle, near Fame Point, in the St. Lawrence, June 12, resulted in the suspension of the certificate of the captain for three months.

The question of providing a dry dock at Montreal is being considered by the Harbor Commissioners and by the Department of Marine. Three engineers are to undertake an investigation into the question and to prepare plans.

An investigation is being made at Quebec by Commander Spain, R.N.R., and J. U. Gregory, agent for the Department of Marine, into the circumstances attending the stranding in the St. Lawrence of the Iberian and other vessels.



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TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1901, gives the following statistics for the year:

CROPS.

ACRES.	AVRAGE YIELD.	TOTAL.
Wheat.....2,011,835	25.1 bus.	50,502,085 bus.
Oats.....689,951	40.3 "	27,796,588 "
Barley.....191,009	34.2 "	6,536,155 "
Potatoes.....24,429	196. "	4,797,433 "

STOCK.

Number of stock in the Province, July 1, 1901:
Horses.....142,080 Sheep.....22,960
Cattle.....263,168 Pigs.....94,680
Value of Dairy Products.....\$926,314

18,375 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1899—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,600,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

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Or JAMES HARTNEY, Manitoba Emigration Agt.,
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Change to lines

Change

The contract for the lengthening of locks 1 and 2 of the Lachine canal has been let to Coulson, Quinlan & Robertson, of Montreal. The new locks are to be 270 ft. in length, with a width of 45 ft., and a depth of 14 ft. of water on the sills.

Shipping-men at Quebec are anxious that the Government should have a new survey made of the St. Lawrence to the ocean. The part from Quebec to Point des Monts has not been surveyed since 1885, and from Point des Monts to the ocean the last survey was made by Capt. Bayfield over 50 years ago.

The Montreal Harbor Commissioners are considering an application from the C.P.R. for the privilege of running its cars on the high level tracks during the winter. The Co. offers 50c. a car for the privilege. The G.T.R. now uses the inside track, and the C.P.R. wishes to use the outside track.

The Minister of Marine, Mr. Prefontaine, proposes to continue the experiments and investigations of his predecessor in office, Mr. Sutherland, in regard to the lighting and buoying of the St. Lawrence, so as to enable navigation to be carried on by night as well as by day. It is expected that the work taken in hand by Mr. Sutherland will be completed by the end of the season of 1903.

L. Lacoste, of the Dominion Department of Public Works, Ottawa, has invented a marine brake, which was recently tested in Montreal. The apparatus consists of a fin fixed to each side of the vessel, which are opened when it is desired to stop or slow down suddenly. The test was made on the Government str. Eureka both in Montreal harbor and in St. Mary's rapids, and the steamer was brought to a stop within 100 ft. By using one of the fins only the Eureka was turned in about her own length.

Ontario and the Great Lakes.

The Hamilton Steamboat Co. has declared a dividend of 10%.

The str. Althea, of Kingston, built in 1901, recently ran ashore in the Bay of Quinte during a snow storm, and was badly damaged.

The Sylvanus J. Macy, a U.S. steamer, sank with her crew of 15 men off Port Burwell, Ont., during a heavy storm, at the end of Nov.

The str. Winona, owned by the Port Stanley Navigation Co., is to have \$1,000 expended on her in repairs and improvements during the winter.

The str. Edith, trading on the Lake of the Woods, for the Black Eagle Gold Mining Co., has been sold by the Sheriff to T. Smith, Rat Portage, for \$1,400.

The Collins Bay Rafting and Forwarding Co.'s schooner Neelon was recently towed into Kingston leaking. She had only been repaired a short time previously.

The Collingwood Board of Trade has passed a resolution calling upon the Government to place gas buoys and other aids to navigation along the shores of Georgian bay.

The Northwest Transportation Co.'s str. Huronic will be laid up at Collingwood, and during the winter a number of changes and improvements will be made to her interior arrangements.

A. Stephen, C.E., recently in charge of the harbor works at Port Colborne for the Dominion Government, has been removed to Collingwood to make surveys and plans for harbor improvements there.

The str. Jubilee, owned by Mrs. A. Roys, of Kingston, has been sold and will be placed

on Lake Timiskaming in the spring. The Jubilee's dimensions are: length, 65.8 ft.; breadth, 14.4 ft.; depth, 5.4 ft.; tonnage, gross, 54; register, 37.

The U.S. str. Hecla had to be repaired at Kingston recently, owing to there not being a dock on the U.S. side of the lake large enough, but on her return to Ogdensburg the customs authorities assessed a duty of 50% ad valorem on the cost of the repairs.

The schooner Jessie Drummond, owned in Toronto and Oakville, with 600 tons of coal, ran aground near Cobourg Dec. 3, and became a total wreck. The crew were saved by the lifeboat. The Jessie Drummond was built in 1864, and was 292 tons register.

Everything possible was done to prolong the season of navigation on the Great Lakes last season. The Department of Marine directed the lights, etc., to be left in position until Dec. 12, if necessary, and the marine insurance underwriters granted an extension of insurances.

Two new bridges, to replace the old central swing bridges, swinging the whole width of the canal, are being built on the Welland canal, and it is proposed to similarly replace the remainder of the central swing bridges, of which there are 12. It is also proposed to light the canal by electricity, 400 lights being used, of which 150 will be placed at the locks.

The Montreal Transportation Co. has placed an order for the construction, at Newcastle-on-Tyne, Eng., of a steel freight steamer to trade between Kingston and Fort William, to be ready in April. The steamer will be 248 ft. long, 48 ft. beam, with a depth of 23 ft., flush decks. The engines will be placed aft, and will be triple expansion cylinders 22, 35 and 58 in. diameter, with 39 in. stroke. Two Scotch boilers, with a working pressure of 180 lbs. to the square inch, will be installed.

The Inland Lakes Transportation Co. of Ontario (Ltd.), has been organized with the following directors and officers: President, J. W. Curry, Toronto; Vice-President, M. Straus, Chicago; other directors: H. Pedwell, Thornbury; F. A. Bassett, Collingwood; J. R. Bond, Toronto; Secretary-Treasurer, F. V. Clisdal, Toronto; General Manager, J. J. Daly, Collingwood. Mr. Daly states that three steel freight steamers, with a capacity of 150,000 bush., will be put on the route at the opening of the season of navigation.

At a fire which started in a lumber yard at Norman, Ont., recently, four steamers and two barges were totally destroyed, and one steamer was partially burned. The steamers are small ones, and were laid up for the winter in a ship yard adjoining the lumber yard. The burned steamers were as follows: Phantom, 55 ft. long, owned by C. Lewis, Rat Portage; Rambler, 46 ft. long, owned by J. S. Whiting and others, Rat Portage; Daystar, 34.5 ft. long, owned by the Presbyterian Foreign Mission Committee, Rat Portage; Spray, 32 ft. long, owned by W. A. Carter, Rat Portage; Kennia, 57 ft. long, owned by L. R. Mackey, Keewatin.

The traffic passing through the Canadian and the U.S. canals at Sault Ste. Marie, from the opening of navigation to Oct. 31, was 35,064,254 tons, against 27,817,811 tons in 1901. The following are the figures for the Canadian canal:

	1902.	1901.	Increase or Decrease.
April 5 to May 31....	532,188	151,679	380,509+
June.....	1,118,564	1,235,055	116,491-
July.....	523,936	276,624	247,312+
Aug.....	639,858	295,175	344,683+
Sept.....	560,031	201,229	358,802+
Oct.....	604,713	354,383	250,330+
Nov.....	635,314	277,144	358,170+
	4,614,604	2,791,289	1,823,315+
+Increase.	-Decrease.		

The Montreal Transportation Co.'s str. Bannockburn, from Fort William to Kingston, has been given up as lost, with her crew of about 20 men. She was last seen about 50 miles south of Passage Island, Nov. 21. The steamer was built at Middlesborough-on-Tees, Eng., 1893, entirely of steel, and equipped with the most modern machinery for loading and unloading, as well as for propulsion. Her dimensions were: length, 245 ft., breadth, 40.1 ft., depth, 18.1 ft. She was fitted with triple expansion engines, to which steam was supplied from boilers tested to a pressure of 160 lbs. to the square inch. The gross tonnage was 1620 and register 1035, and she could carry 80,000 bush. of grain. She was insured for \$100,000.

The Minister of Railways and Canals recently inspected the work being done on the Trent Valley canal, in company with C. Schrieber, Deputy Minister. Mr. Schrieber stated that during last season the work done was simply the finishing up of the previous season's contracts, and that during the season of 1903 it was expected to have completed the waterway from Peterboro' to Lake Simcoe. The important feature of the work was the liftlock at Peterboro', the steel work of which is being put in by the Dominion Bridge Works, Montreal. The lock is designed to transfer vessels from one reach of the canal to another in one lift, overcoming a difference of 65 ft. in level. The lock consists of two water-tight steel chambers or boxes 140 ft. in length, 33 ft. wide, and giving a depth of 8 ft. of water in the clear, and closed at the ends by gates, similar gates also close the ends of the reaches of the canal. These chambers are carried by means of heavy trusses supported on the top of two hydraulic rams, which work in two steel water-tight presses, one under each chamber. One chamber is at the high level and the other is at the low level. When a vessel has to be transferred from one level to the other it enters the chamber, and the gates are closed, thus confining the water in the canal and the water in the chamber. The hydraulic lift is then operated and the position of the chambers is reversed, the one at the lower level being transferred to the higher, and the upper chamber descending to the lower reach. The gates are then opened and the vessel passes into the canal again. The time occupied in passing one vessel, either up or down, or two going in opposite directions, will be 15 minutes. The weight of the chamber, rams, presses, etc., will be about 1,500 tons, and the total weight on the foundation of the presses will be 3,000 tons.

Manitoba and the Northwest Territories.

The Pioneer Navigation and Sand Co. (Ltd.) is making application for incorporation under the Manitoba Joint Stock Companies' Act, with a capital of \$75,000, to build, buy and operate steamships, vessels, tugs, barges, etc., and to carry on a general navigation and forwarding business, and to deal in sand, gravel and other builders' material. The provisional directors of the Co. will be J. S. Hall, R. Hall, W. H. Hall, McP. Howatt, J. H. Leach, and A. I. Davidson, of Winnipeg.

The advent of a railway at Athabaska Landing, Sask., will bring into prominence a great chain of inland navigation nearly as extensive as that of the Great Lakes and St. Lawrence river. From Athabaska Landing to the Arctic ocean, at the mouth of the Mackenzie river, 165° north latitude, 135° west longitude, is about 1,300 miles, and in all this stretch there are but two obstructions to continuous navigation, one of 47 miles in the Athabaska river, and the other of 20 miles, in the Slave river, connecting Athabaska lake and Great

Slave lake. The first of these series of rapids, in the opinion of navigators, could be stemmed by powerful steamers during high-water, at any rate. Vessels of 500 tons can navigate the stream from the end of the second series of rapids to the Arctic ocean for five months in the year. The Athabaska and the Mackenzie rivers are now regularly navigated by the Hudson's Bay Co.'s steamers, and U.S. whalers visit the Mackenzie river every season. In addition to the rivers, this stretch of inland navigation includes Athabaska lake, 192 miles long, and Great Slave lake, 300 miles long. Flowing into Athabaska lake is Peace river, which gives 350 miles of navigation, with but one break at Fort Vermilion, through the most promising wheatlands of the West. The development of this country will give a considerable impetus to shipbuilding as soon as a railway gets pushed through to Athabaska Landing from Edmonton.

B. C. and Pacific Coast Shipping.

The freight str. Fingal, which was sunk after collision with the str. Rosalie in Victoria harbor, Nov. 12, has been floated and will be repaired.

The steamer now under construction at the Esquimalt Marine Ry. Co.'s yard, Esquimalt, for the C.P. Navigation Co., is to be named the Princess Beatrice.

The str. Tyrrell, though tied up for two nights, made her last trip for the season from Dawson to Whitehorse in 71 hours, which Dawson papers say is the record for the time of year.

The boiler for the Dominion Government cruiser Kestrel, now being built at Vancouver, has been delivered by the Polson Iron Works, Toronto. The Kestrel was launched early in Dec.

The Tasmania, one of the Yukon river steamers, built in sections in England, and shipped to the Yukon at the beginning of the rush, has been taken to Vancouver to be sold, there being no further use for her on the river.

A stern wheel steamer, the Favourite, to run between Mission and New Westminster, B.C., has been built at Vancouver, at a cost of about \$14,000. She is owned by G. C. Harvey, and will ply between New Westminster and Mount Lehman.

The C.P. Navigation Co., Capt. Troup says, will run two steamers between Vancouver and Victoria in the near future. The fast new steamer will run directly between the two ports, and the second will touch at Steveston, connecting there with the Vancouver and Lulu Island Ry.

The C.P. Navigation Co.'s str. Willipa has been sold to U.S. owners who propose to put

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her on a route between Whatcom, Fairhaven, Seattle and Tacoma, Wash. The Willipa was built at Astoria, Ore., 1891, and has been in the C.P.N. Co.'s service for about five years. The price paid is said to be about \$35,000.

The Pacific Towing and Lighterage Co. (Ltd.) has been incorporated under the B.C. Companies Act, with a capital of \$40,000, to take over the tug Albion. The Co.'s offices are at Victoria. The Co. has also purchased the schooner Alexander, built at Port Essington in 1876, which will be converted into a barge.

There have been a number of changes in the captains in charge of the Dunsmuir fleet of colliers, owing to the death of Capt. Salmon, of the Wellington. Chief Officer McKenna, of the Wellington, becomes captain, and Capt. Butler, of the Lorne, becomes pilot of the Wellington; and J. W. Cates is appointed to the Lorne.

A syndicate is being formed in Vancouver to purchase the steamer North Vancouver, now being operated as a ferry by the municipality of North Vancouver, and continue the ferry service. It is believed that it can be operated more economically by a company than by the municipality. At a public meeting of ratepayers recently held a good deal of opposition was shown to the proposal, and the granting of a lease is still under consideration by the council.

The C.P. Navigation Co.'s str. Charmer completed her 3,000th trip between Vancouver and Victoria recently, which event was celebrated by a luncheon. The Charmer was originally the Premier, and was built at San Francisco in 1887, and sailed under a U.S. registry until July 1, 1893, having then made 682 trips between the two cities. Capt. Rudlin then took charge of the steamer, which was re-named the Charmer, and has been in command ever since. During that period the Charmer has only missed the train connections once, and has never met with an accident costing more than \$50 for repairs.

The trial trip of the cable str. Iris, built at Port Glasgow for the Pacific Cable Board, has passed off satisfactorily, and the steamer is now on her way to Fanning Island, where she will be stationed to do any repairs on the trans-Pacific cable from British Columbia to Australia. She has a length of 285 ft. on the water line, with a moulded breadth of 40½ ft., and a depth, moulded to the spar deck, of 25 ft. The promenade deck is 109 ft. in length, on which is placed the captain's room and a dining saloon, and above this is the chart-room, wheel-house and officers' quarters. The electricians, cable officers, engineers, etc., have their apartments on the main deck. There are four cable tanks, and the special cable machinery is fitted, the heavy machinery forward and the lighter aft. The steamer is provided with a 30 ft. steam launch and five boats. The propelling machinery consists of two sets of triple expansion engines, cylinders 18½, 31 and 51 in. diameter by 39 in. stroke, to which steam is supplied by three single-ended boilers, 14 ft. diameter by 11 ft. 6 in. long, for working pressure of 190 lbs. to the square inch. The contract speed was 13¾ knots an hour, but at the trial trips a maximum of 15¼ knots was made with an average on the six hours' test of 14.4 knots.

There will be operated in connection with the G.T.R. from Portland, Me., six lines of steamers as follows:—Weekly—Dominion line to Liverpool, Thomson line to London; fortnightly—Allan line to Glasgow, British and North American line to Avonmouth (Bristol); every three weeks—Leyland line to Antwerp; monthly—Hamburg-American line to Hamburg. The press reports that the G.T.R. was about to establish a freight line of its

own between Portland and Avonmouth are declared at the Montreal offices of the Company to be without foundation.

The C.P.R. has completed arrangements for supplying freight to ten lines of steamers sailing from St. John, N.B., during the winter as follows:—Weekly—Allan line to Liverpool, Donaldson line to Glasgow; fortnightly—Elder-Dempster line to Liverpool, Manchester line to Manchester, Elder-Dempster line to Bristol, Head line to Dublin and Belfast, Pickford and Black line to West Indies; every ten days—Furness line to London; monthly—Joint line to South Africa, Canada-Jamaica line to Kingston and other Jamaican ports.

Sir Thos. Shaughnessy recently stated that he would tell all about the projected C.P.R. Atlantic Steamship Line when the result had been accomplished. Meanwhile it is reported that orders have been placed on the Clyde for four steamers for this service and two additional steamers for the trans-Pacific line. In connection with the projected Atlantic line, the Hong Kong Chamber of Commerce has passed a resolution favoring it, and also asking for a faster trans-Pacific service.

Among the Express Companies.

The Canadian Ex. Co. has opened an office at Ekfried, Ont.

The Western Ex. Co. has opened offices at Manfred, N.D., and Mikana, Wis.

The Dominion Ex. Co. has opened offices at Port Haney, B.C., and Grindlay, Sask.

The Canadian Northern Ex. Co. is under the direct charge of D. B. Hanna, 3rd Vice-President of the Canadian Northern Ry.

The Dominion Ex. Co. has closed the offices maintained during the season of navigation at Emo, Fort Frances and Rainy River, Ont. Emo, Fort Frances and Mine Centre are now exclusive offices of the Canadian Northern Ex. Co.

The Quebec Ry., Light and Power Co. has established a parcel delivery system over its Montmorency line. The minimum charge is 5 cents for a parcel up to 10 lbs., and parcels from 50 to 100 lbs. are carried for 25 cents. Business is exchanged with all express companies.

P. MacDonald, Assistant Auditor of the Canadian Express Co. at Montreal, who recently resigned, was presented by the employees of the audit department with an umbrella, a meerschaum pipe and tobacco pouch, prior to his departure for South Africa. Up to December 11 no appointment had been made to fill the vacancy.

The White Pass and Yukon Ry. Co.'s stage from Whitehorse to Dawson, Yukon, is now in operation, carrying passengers, mails and express. In addition to the regular service there is a special weekly fast stage carrying freight under contract. There are 14 stopping places on the route at distances varying from 18 to 25 miles apart, at each of which relays of horses are kept. Each stage is drawn by 4 horses, and 160 horses are kept for the service. Accommodation is provided on each stage for 10 passengers, 1,000 lbs. of passenger baggage and 1,000 lbs. of express and mails.

Telegraph and Cable Matters.

The Commercial Cable Co. has declared the usual quarterly dividend of 1¾%, and a bonus of 1% payable Jan. 2.

Sir Sandford Fleming has had a telegram sent to the Mayor of Ottawa, round the world by the new cable route, in 6 h. 3 m.

The Canadian Northern Ry.'s commercial telegraph department is under the direct charge of D. B. Hanna, 3rd Vice-President.

The first cable laid in America was completed between Cape Traverse, Prince Edward Island, and Cape Tormentine, N.B., Nov. 21, 1852.

The C.P.R. telegraph department proposes stringing a second wire from Lindsay to Cavanville, Ont., to accommodate the increasing business.

The trans-Pacific cable from Bamfield Creek, B.C., to Australia and New Zealand was declared open for the transmission of public messages Dec. 8.

The Commercial Pacific Cable Co. has obtained an amendment to its charter enabling it to extend its cable, now being laid from San Francisco to Manila, from the latter port to Shanghai.

The International Association of Railway Telegraphers held its annual convention at Montreal, Dec. 18, the executive officers having previously visited the chief railway centers in Canada.

It is proposed to establish wireless telegraph stations at several points on the Newfoundland coast, with a view of keeping up communication with vessels approaching and passing through the grand banks.

A suggestion has been made to re-name Bamfield Creek, B.C., the landing place of the trans-Pacific cable, Fleming, in honor of Sir Sandford Fleming who, for so many years, advocated the construction of the cable.

By a connection between the Government Ashcroft-Dawson telegraph line with the U. S. line from Egbert, Alaska, about 450 miles in length, telegraphic communication can be had with St. Michaels and Cape Nome.

The Pacific Cable Board has fixed a rate of 58 cents a word for commercial messages, and 22 cents a word for press messages, over the new all-British trans-Pacific cable. A rate of 99 cents a word for commercial messages was at first announced.

The Pacific Commercial Cable Co.'s cable from San Francisco, Cal., to the Philippines will have a total length of 8,000 miles, and will be completed in the spring of 1904. The route was selected from a chart of the ocean floor made from 950 soundings.

The telegraphers employed on the Intercolonial Ry., as the result of a conference with the Minister of Railways, have been granted an increase of pay to the extent of \$3.50 a month. This will mean an addition to the pay roll of about \$40,000 a year.

A. L. Dearlove, the engineer who tested the all-British trans-Pacific cable before it was taken over by the Pacific Cable Board, has been able to transmit messages from Bamfield Creek, B.C., to Fanning Island, 3,478 miles, at the rate of 117 letters a minute.

The British Post Office Department has recognized the commercial value of Marconi's system of wireless telegraphy, and has removed the restriction preventing its application for commercial purposes within three miles of the shores of Great Britain and Ireland.

The maintenance of the Yukon telegraph line is a difficult matter, especially during the winter. A sleet storm, on Nov. 25, coated the wire with ice, and a succeeding wind storm caused breaks over 400 miles. The repair staffs were fully employed, but additional breaks were constantly being reported.

A long message was recently received by the Italian war vessel in Sydney harbor, N.S., by wireless telegraphy from Poldhu, Cornwall. Marconi declines to make any statement as to the progress of the work at Glace Bay, or as to the experiments made, but says he will make a full statement when everything is complete.

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Initiation fee (minimum).....	\$1 00
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Total minimum cost	\$4 50

(For more than \$1,000 Mort. Benefit.)

Cost to take \$2,000 Mort. Benefit.....	\$6 00
" " \$3,000 " " " " " "	7 00
" " \$4,000 " " " " " "	9 00
" " \$5,000 " " " " " "	10 00
Sick benefits, when required, cost extra.	

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- 1.—The Mortuary Benefit of \$500, \$1,000, \$2,000, \$3,000, \$4,000 or \$5,000.
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- 3.—An Old Age Benefit consisting of exemption from payment of premiums and Court dues after age 70.
- 4.—An Old Age Disability Benefit of one-tenth of face value of policy payable yearly for ten years, on being declared totally and permanently disabled by infirmities of age after the seventieth birthday.
- 5.—An Old Age Pension payable during disability, which may be taken as a substitute for the Old Age Disability Benefit.
- 6.—Free Medical Attendance by Court Physician where not dispensed with by Court by-law; also trained nurses in certain cases.
- 7.—A Sick Benefit of \$3 to \$5 per week, subject to provisions of the Constitution and Laws of the Order; optional, and when taken costs extra.
- 8.—A Burial Benefit of \$100 at death of a Pensioner.
- 9.—A Funeral Benefit of \$50 at death of a member enrolled in Sick and Funeral Benefit Department.
- 10.—Social and Fraternal Privileges of the Court Room.

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At 31st December Each Year.

Year.	Total Membership.	Benefits Paid.	Total Surplus.	Surplus per Capita.	Death Rate per 1,000.
1881	1,019	\$ 1,300 00	\$ 4,568 55	\$ 4 48	4.50
1882	1,134	12,058 86	2,967 93	2 61	11.00
1883	2,210	9,493 68	10,857 65	4 91	4.73
1884	2,558	13,914 31	23,081 85	9 01	4.23
1885	3,642	26,576 99	29,802 42	8 18	7.76
1886	5,804	28,499 82	53,981 28	9 30	4.85
1887	7,811	59,014 67	81,384 41	10 44	5.78
1888	11,800	89,018 16	117,821 96	9 98	6.43
1889	17,349	116,787 82	188,130 36	10 84	5.85
1890	21,604	181,846 79	283,967 20	11 51	5.18
1891	32,303	261,436 21	408,798 20	12 65	6.40
1892	43,024	344,748 82	580,597 85	13 49	6.25
1893	54,484	392,185 93	858,857 89	15 76	5.47
1894	70,055	511,162 30	1,187,225 11	16 94	5.47
1895	86,521	685,000 18	1,560,733 46	18 03	5.67
1896	102,838	820,941 91	2,015,484 38	19 60	5.50
1897	124,685	992,225 60	2,558,832 78	20 52	5.56
1898	144,000	1,176,125 11	3,186,370 36	22 12	5.67
1899	163,610	1,430,200 33	3,778,543 58	23 09	6.30
1900	180,717	1,545,145 64	4,483,364 44	24 81	6.53

For Further Information Respecting this Great Fraternal Benefit Society, Apply to

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Or Any Officer or Member of the Order.

The British speaking residents at St. Pierre, Miquelon, now comprise the operators of the Anglo-American Cable Co. and their families. At one time the French Cable Co., which also has a station at St. Pierre, also employed British operators, but has now replaced them all by Frenchmen. The British operators have established clubs and recreation rooms at their headquarters.

Sir J. Wolfe-Barry, Chairman of the Eastern Extension Cable Co., recently stated that the new trans-Pacific cable was the outcome and fulfilment of a sentimental notion. It was no more all-British than the Eastern Co.'s own cables. He saw no cause for violent alarm among the latter's shareholders. Their cables afforded greater facilities to the public than the Pacific line, with its single cable.

D. H. Keeley, Superintendent of Government Telegraphs, states that the operators at the mainland and Belle Isle telegraph stations are now as familiar with the wireless telegraph apparatus and its use, as with the ordinary telegraph and cable instruments. The cable between these stations is in an exposed position, and is liable to be interrupted through erosion caused by passing ice floes.

The C.P.R. telegraph department, in order to meet the requirements of the contract for the transmission of messages through Canada, for the new trans-Pacific cable, had to construct a line from Montreal to Riviere du Loup, via Quebec, thence to Edmundston and St. John, N.B., so as to secure an all-Canadian line. The new line is about 100 miles longer than the one over the C.P.R. through Maine.

N. Maskelyne, of Maskelyne & Cooke, who patented the automaton chessplayer and other scientific curiosities, in London, Eng., has written an article in the *Electrician*, in which he gives the results of some experiments he made with a wireless telegraph apparatus at Porthcurnew, Cornwall, some miles away from Poldhu. He succeeded in intercepting signals between Poldhu and the Italian war ship, on which Marconi was travelling, and discovered that there had been a change in sending out the messages after he had been experimenting.

Speaking of wireless telegraphy, A. Dearlove, who inspected the trans-Pacific cable for the Pacific Cable Board, says it will be years before the cable service is affected by it. Rapidity, accuracy and secrecy are the great features of the cable service, and these have not yet been attained by Marconi. The present speed on some of the Atlantic cables is 450 letters a minute, or eleven times the speed obtained by the Marconi system under the most favorable conditions. D. H. Keeley, Superintendent of Government telegraphs, says the wireless telegraph will be an auxiliary to the telegraph and cable service, and thinks that the best results will be obtained with stations not more than 300 miles apart.

As a souvenir of the completion of the all-British trans-Pacific cable, 62 cards have been issued by the engineers in charge of construction, and have been sent to the King, the premiers of the countries interested in the new cable, and others connected with its construction. The card certifies that "the subjoined signals were transmitted from Fanning island by automatic curb sender, through the world's largest cable (3,458 nautical miles), and received here on the Kelvin siphon recorder at a speed of 100 letters per minute." The signals in each case gave the name and address of the recipient, recorded on the cable ribbon on which they were received. Among those who have received these souvenirs are J. Kent, Manager C.P.R. Telegraphs, Montreal, and W. Christie, Manager C.P.R. Telegraphs, Vancouver, B.C.

General Telephone Matters.

The Bell Telephone Co. proposes to lay underground cables in Kingston, Ont., and is asking the City Council for the necessary authority.

The Bell Telephone Co. has been given an exclusive franchise in Hull, Que., for five years, the rates to be \$45 for business telephones, and \$30 for telephones in residences.

The Montreal city council is considering the advisability of asking the Quebec Legislature for authority to borrow \$1,000,000 for the purpose of constructing underground conduits for telephone and other wires in the city.

The Bell Telephone Co. is inviting tenders for the poles required for the stringing of a line along the Government road between Sault Ste. Marie and Thessalon, Ont., about 50 miles. The poles are to be delivered by May 31.

Within two years the number of telephones in use at Sault Ste. Marie, Ont., has increased from 125 to 400, the limit of the switchboard capacity. The Bell Telephone Co. is increasing its capacity to 500 to meet the increasing demand.

The Bell Telephone Co.'s new long distance lines in Manitoba have been connected with the lines on the U. S. side of the boundary so as to give through communication between Winnipeg and St. Paul, Minn., and Chicago, Ill.

Owing to increased business the New Westminster and Burrard Inlet Telephone Co. has made a connection at Blaine, Wash., with the lines of the Sunset Telephone and Telegraph Co., thus giving a direct connection between New Westminster, B.C., and Seattle, Wash.

The Ottawa city council has adopted a resolution asking the co-operation of the other municipalities in Canada, in petitioning the Dominion Parliament in legislating on the telephone question, to ensure power being given to municipalities dealing with the Bell Telephone Co. to expropriate their local telephone system, if thought desirable.

The Government line, operated by telephone from Edmonton, Alta., to Riviere Qui Barre, is being extended to the mission on the Alexandre, and it is proposed to extend it six miles further northwest. J. S. Macdonald, Superintendent of Government Telegraph lines in the west, was at Edmonton recently looking after the extension.

The Bell Telephone Co. has appealed against the decision of Justice Street given in March, 1902, in which it was held that the Co. had not the right to erect any poles or carry lines either above or below ground without the consent of the city, the city of Toronto being the respondent. The case is before the Ontario court of appeal.

The telephone committee of the Hamilton city council, after arriving at a decision that a dual telephone system was not a desirable thing to have, gave a further consideration to the whole matter Dec. 11, and passed a resolution recommending the council to postpone deciding the question until after the ensuing session of the Dominion Parliament, at which the Government telephone bill is to be considered.

The Modern Telephone Co., which has its headquarters at Hamilton, Ont., has established a rural telephone circuit embracing Markham, Locust Hill, Whitevale, Green River and Brougham, Ont. Some 30 subscribers have taken telephones, paying \$40 therefor, and contributing a small sum annually for maintenance. The instruments installed are all provided with long-distance equipment.

The stock-book of the Modern Telephone Co., which is applying for a franchise in Hamilton, Ont., was recently inspected by Mayor Hendrie. The share capital is \$300,000 in 3,000 shares of \$100 each, and the stock-book showed the following shareholders: O. W. Rogers, New York, 250 shares; J. S. King, Toronto, 150 shares; W. A. Johnson, Toronto, 100 shares; J. B. Scovell, Lewiston, N.Y., 100 shares; H. A. Drummond, Toronto, 100 shares.

The Kamouraska Telephone Co. has been incorporated under the Quebec Companies' Act with a capital of \$10,000, to carry on an electric and telephone business in the counties of l'Islet, Kamouraska and Temiscouata. The incorporators are: C. A. Desjardins, of St. Andre; J. C. Pouliot, J. E. Frenette, of Fraserville; J. A. Moreau, of St. Germain; J. A. Blanchet, J. Paradis, of Kamouraska; L. P. Crepeault, of Montreal; Josephine Lapointe, T. Ward, of St. Louis de Kamouraska; and H. Pelletier, of St. Alexandre.

The employees of the New Westminster and Burrard Inlet Telephone Co. at Vancouver went on strike Nov. 26, and the system was tied up until Dec. 3, when non-union hands were taken into the city. H. W. Kent, General Superintendent, says the strike originated in the operators belonging to the union making a demand for increased wages and wishing an answer to be given within a limited time, which it was not possible to do, as the directors were out of town. The operators say this is not the case, as it originated in the Co.'s discriminating against an employe active in the union interest who was given the choice of a transfer to Nanaimo or being dismissed.

The Eastern Telephone Co. cut over on to its new central energy switchboard in its exchange at Sydney, on Oct. 5. The work of reconstruction was begun a year ago, when the directors decided to anticipate the future growth of the town and build to meet it. With this object in view a building was erected, underground conduits laid, and the latest type of relay switchboard ordered. The building is on Pitt st., and is of brick, and underwriters approved slow-burning construction. It is 27x50 ft., and three stories high. The front part of the ground floor is let for a shop, but all the rest of the building is used by the Co. The instrument repair room is in the back part of the ground floor, the general offices of the Co. on the second floor, and the top floor is devoted to the operating room, operators' waiting room, etc. In the basement is a brick cable vault, where the underground cables enter the building. The rest of the basement is used for stores. A system of underground conduits sufficient to meet the demands of many years has been laid on Pitt st., crossing the three main thoroughfares of Esplanade, Charlotte and George streets, and branches extend north and south on Charlotte st. There are 1,500 ft. of conduit containing about 5,000 ft. of ducts. The overhead work has been entirely re-constructed, and all circuits made metallic. The re-construction of the system in Glace Bay, and the making it metallic, is also nearly completed. A new switchboard has been installed there. North Sydney will be undertaken next and treated in the same way. The Co. controls all the telephone lines in Cape Breton island, having about 40 toll offices and six exchanges. Arrangements are being made to build a through line from Sydney to Port Hastings next. This will connect with the lines of the Nova Scotia Telephone Co. The Eastern Telephone Co. is about to equip its offices with enameled iron signs, lettered on both sides, "The Eastern Telephone Co., Limited," in white letters on blue ground, for which an order has been placed with the Acton Burrows Co., Toronto.

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Department of Railways and Canals, Canada.

TENDERS FOR STEEL RAILS.

SEALED TENDERS addressed to the undersigned
and endorsed "Tender for Steel Rails," will
be received at this office up to sixteen o'clock
on 15th January, 1903, for 25,000 tons of 80-lb. Steel
Rails for the Intercolonial Railway.

All the above to be delivered on or before 31st May,
1903.

Conditions, forms of tender and all other information
will be furnished on application at this office.

By order,

L. K. JONES, Secretary.

Department of Railways and Canals,
Ottawa, 17th November, 1902.

Newspapers inserting this advertisement without
authority from the Department will not be paid for it.

DIVIDEND NOTICE.**Niagara Navigation Company,
Limited.**

NOTICE is hereby given that a dividend
of four per cent., being at the rate of
eight per cent. for the year, has been
declared upon the capital stock of this Com-
pany, and the same will be payable on the
2nd January, 1903. The transfer books will
be closed from the 17th December, 1902,
to 31st December, 1902, both days inclu-
sive.

JOHN FOY,

Manager.

Toronto, Dec. 9th, 1902.

NOTICE.—The British Columbia Southern
Railway Company will apply to the
Parliament of Canada, at its next
session, for the passing of an Act ex-
tending the time for commencement and
completion of the railway which it was
authorized by the Act of the Parliament of
Canada, 62-63 Victoria, Chapter 55, to con-
struct, acquire and operate between a point
on its railway in the neighbourhood of Fort
Steele and a point at or near Golden on the
Canadian Pacific Railway.

By order of the Board,

H. CAMPBELL OSWALD,

Secretary.

Montreal, 13th November, 1902.

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PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Steel Buildings	Dominion Bridge Co.	Montreal.
Steel Plate	Jas. W. Pyke & Co.	Montreal.
Steel Tyres	Jas. W. Pyke & Co.	Montreal.
Structural Metal Work	Dominion Bridge Co.	Montreal.
	Jas. W. Pyke & Co.	Montreal.
Switches	Canada Switch and Spring Co.	Montreal.
Switch Lamps	The Hiram L. Piper Co.	Montreal.
Switch Targets	Acton Burrows Co.	Toronto.
Telegraph and Telephone Office Signs	Acton Burrows Co.	Toronto.
Tobacco and Cigars	The Hudson's Bay Company.	
Toilet Paper	The Hudson's Bay Company.	
Tools	Rice Lewis & Son.	Toronto.
Track Jacks	James Cooper.	Montreal.
	Duff Manufacturing Co.	Allegheny, Pa.
	W. H. C. Mussen & Co.	Montreal.
	A. O. Norton.	Coaticook, Que.
Track Tools	Canada Switch and Spring Co.	Montreal.
	James Cooper.	Montreal.
	Rice Lewis & Son.	Toronto.
	W. H. C. Mussen & Co.	Montreal.
Tramway Equipment	James Cooper.	Montreal.
	J. J. Gartshore.	Toronto.
Trucks (Electric Car)	Baldwin Locomotive Works.	Philadelphia, Pa.
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Trucks (Warehouse and Express)	Rice Lewis & Son.	Toronto.
Turntables	Dominion Bridge Co.	Montreal.
Varnishes	McCaskill, Dougall & Co.	Montreal.
Vessels	Poison Iron Works.	Toronto.
Waste	Rice Lewis & Son.	Toronto.
	N. L. Piper Ry. Supply Co.	Toronto.
	The Queen City Oil Co.	Toronto.
Wheelbarrows	James Cooper.	Montreal.
	Rice Lewis & Son.	Toronto.
Window Blinds	The Hudson's Bay Company.	
Wines and Liquors	The Hudson's Bay Company.	
Wire & Wire Rope	Dominion Wire Rope Co.	Montreal.
	Rice Lewis & Son.	Toronto.
	W. H. C. Mussen & Co.	Montreal.
	The Wire and Cable Co.	Montreal.
Wire, Copper	E. F. Phillips Electrical Works, Ltd.	Montreal.
Wire, Electric	E. F. Phillips Electrical Works, Ltd.	Montreal.
	The Wire and Cable Co.	Montreal.
Wire, Insulated Copper	E. F. Phillips Electrical Works, Ltd.	Montreal.
Wire, Telegraph and Telephone	E. F. Phillips Electrical Works, Ltd.	Montreal.
	The Wire and Cable Co.	Montreal.
Yachts	Poison Iron Works.	Toronto.

NOTICE

THE Ottawa, Northern and Western Rail-
way Company (an amalgamation of the
two companies formerly known as the
Pontiac Pacific Junction Railway Company),
will apply to the Parliament of Canada
at its approaching session for the passing of
an Act extending the time now prescribed by
law for the commencement and completion
of the railway, extensions and branches
authorized to be constructed by the Acts
62-63 Victoria, Chapter 84, and 63-64 Victoria,
Chapter 72.

H. L. MALTBY,

Secretary.

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To the Manufacturers of & Dealers in Steam & Electric Railway, Steamship, Express, Telegraph & Telephone supplies, &c.

Accident Insurance Travelers' Insurance Co.....Montreal.	Dry Goods The Hudson's Bay Company.....	Mohair The Hudson's Bay Company.....
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Anchors Rice Lewis & Son.....Toronto.	Engines, Stationary & Marine Polson Iron Works.....Toronto.	Office Signs Acton Burrows Co.....Toronto.
Axles Jas. W. Pyke & Co.....Montreal. Rhodes, Curry & Co.....Amherst, N.S.	Engraving Acton Burrows Co.....Toronto. Toronto Engraving Co.....Toronto.	Packing Gutta Percha and Rubber Mfg. Co.....Toronto.
Babbitt Rice Lewis & Son.....Toronto.	Express Office Signs Acton Burrows Co.....Toronto.	Pinch Bars The Hiram L. Piper Co.....Montreal.
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Chains Rice Lewis & Son.....Toronto.	Locomotives (Electric) American Locomotive Co.....New York, N.Y. Baldwin Locomotive Works.....Philadelphia, Pa.	Spikes Rice Lewis & Son.....Toronto.
Concrete Mixers W. H. C. Mussen & Co.....Montreal.	Locomotives (Steam) American Locomotive Co.....New York, N.Y. Baldwin Locomotive Works.....Philadelphia, Pa. Canadian Locomotive Co.....Kingston, Ont. James Cooper.....Montreal.	Springs Canada Switch and Spring Co.....Montreal.
Contractors' Plant M. Beatty & Sons.....Welland, Ont. James Cooper.....Montreal.	Locomotives (Rack) American Locomotive Co.....New York, N.Y. Baldwin Locomotive Works.....Philadelphia, Pa.	Station Name Signs Acton Burrows Co.....Toronto.
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Curtains The Hudson's Bay Company.....	Milepost Numbers Acton Burrows Co.....Toronto.	Steamboat Signs Acton Burrows Co.....Toronto.
Cuts Acton Burrows Co.....Toronto.		Steam Couplers Safety Car Heating and Lighting Co., New York
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Derricks M. Beatty & Sons.....Welland, Ont. James Cooper.....Montreal.		Steel James Cooper.....Montreal. Wm. Jessop & Sons.....Sheffield, Eng. Rice Lewis & Son.....Toronto.
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(Continued on preceding page.)

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TORONTO, CANADA, FEBRUARY, 1903.

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RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska.—A contract for the construction of the Valdez, Copper River and Yukon Ry. from Valdez to Eagle, Alaska, and thence to Dawson, about 500 miles, is reported to have been let to J. B. McDonald, of New York. It is said that the line is to be completed in three years, and the first section from Valdez to Copper Center next fall. (Nov., 1902, pg. 380.)

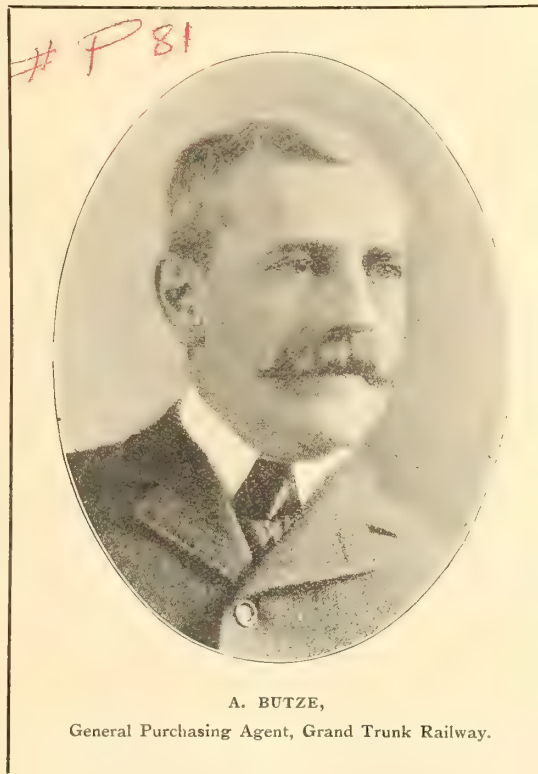
Alberta Central Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the commencement and completion of the line authorized in 1901, from tp. 38, range 23, west of the 4th meridian, westerly via Red Deer to tp. 37, range 7, west of the 5th meridian, and to authorize the construction of an extension from tp. 38, range 23, west of the 4th meridian easterly to tp. 39, range 11 west of the 4th meridian. Greene & Payne, Red Deer, Alta., are the solicitors. (May, 1901, pg. 153.)

Alberta Ry. and Coal Co.—We are informed that the widening of the gauge from the International boundary to Lethbridge, 66 miles, has been completed, and that standard trains have been in operation since Jan. 4. The line from the International boundary to Great Falls, Mont., is being operated by the Great Northern Ry., U.S.A., under the name of the Montana and Great Northern Ry., instead of the Great Falls and Canada Ry. as formerly. (Aug., 1902, pg. 262.)

Algoma Central and Hudson Bay Ry.—In connection with the recent financial difficulties of the Consolidated Lake Superior Co., there has been a good deal of criticism of F. H. Clergue and his projects. A special correspondent of the Toronto Globe, writing from Sault Ste. Marie, says: "There seems to be ground for some of the criticism in such a case, for instance, as the construction of the Algoma Central Ry. too rapidly on the heels of the locating engineers, resulting in a change of route and the waste of many thousands of dollars."

Some differences have arisen between the A. C. and H.B. Ry. and Foley Bros., Porter and Whalen, of St. Paul, Minn., who had a sub-contract for grading 100 miles of the line. T. Foley, one of the firm, applied to the Minister of Railways to prevent the payment to the Co. of \$341,000 of subsidies, until their claim of \$452,000 was paid. The Minister declined to interfere, the questions involved being entirely of a legal character. Mr. Foley says his firm has been unable to complete the bridge construction on the contract, owing to the failure of the Co. to lay the rails;

all the grading was done and the bridges would have been constructed if they had been able to get the timber out. F. H. Clergue states that the Co. has no contract relations with Foley & Co., who are sub-contractors to James Conmee & Co., who have the contract for the construction of the whole line. Every dollar of the estimates had been paid month by month to the contractors, the amount paid being over \$2,000,000. A percentage of the total was kept back until the completion of the contract. The profitable portions of the work had been completed, and



A. BUTZE,
General Purchasing Agent, Grand Trunk Railway.

the sub-contractors, says Mr. Clergue, desire to be released from their obligation to do the unprofitable portions. Conmee & Co. wrote under date of Dec. 1, that Foley & Co. had been promptly paid all that was due them on their contract, and that on Dec. 1 there was nothing whatever due them under the terms of their contract which call for the retention of 15% until the whole work is finally completed. It is stated that Foley & Co. put up \$300,000 as a guarantee for the due performance of the work. This \$300,000 and the 15% retention money represents the sum which Foley & Co. desire to have paid them. (Jan., pg. 18.)

Atlantic and Lake Superior Ry.—Application will be made next session of the Dominion Parliament for an act fixing the time for the completion of the line, authorizing the construction of branches, and for authority to lease the line to or to amalgamate with other companies. The A. and L.S.R. Co. has 100 miles of line constructed from Metapedia to 2 miles beyond New Carlisle, Que., and has authority to construct a line along the shore to Gaspé, Que. The extension to the 100th mile was completed early in Dec. In the event of subsidies being voted, it is intended to extend the line to Port Daniel during the year. (Nov., 1902, pg. 380.)

Atlantic, Quebec and Western Ry.—Application will be made next session of the Dominion Parliament for an act incorporating the A.Q. and W. Ry. Co., now incorporated by the Quebec Legislature; as a Dominion company with additional powers; to extend the projected line from the proposed terminus at Causapsal, on the I.C.R., south-westerly to Edmundston, N.B., where the C.P.R. and the Temiscouata Ry. now effect a junction, and to construct a line from Gaspé Basin to join the Atlantic and Lake Superior Ry. at Paspébiac, Que., along the shore line. (Jan., pg. 18.)

The Bangor and Aroostook Ry. has in contemplation the extension of its recently completed line from Ashland to Fort Kent, Me., along the St. John River to St. Francis, Me. St. Francis, on the New Brunswick side of the river, is the terminus of a branch of the Temiscouata Ry. (Jan., pg. 19.)

Brockville and Western Ry.—Application will be made next session of the Dominion Parliament for an act to incorporate a company with this title to acquire and complete the Brockville Westport and Sault Ste. Marie Ry., and to construct a railway bridge across the St. Lawrence, opposite Brockville in connection with the railway. E. N. Armstrong, Montreal, is attorney for applicants. (Nov., 1902, pg. 380.)

Canada Atlantic Ry.—Application will be made next session of the Dominion Parliament for an act authorizing the construction of a line from west of Whitney to Sault Ste. Marie, Ont., to acquire hotels and pleasure resorts, etc., and extending the time for the completion of lines already authorized, but uncompleted.

An arrangement is about to be concluded with the C.P.R. in respect of the use of the Central station at Ottawa by that Co., and the consideration of the question by the Railway Committee of the Privy Council has been postponed. (Jan., pg. 19.)

We were informed Jan. 17 that the proposal to construct a spur line 4 miles in length from Caldwell to the Radnor iron mines is not yet

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Canadian Excursion Agreement Meeting.

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NEXT ANNUAL MEETING at Sydney, N.S., Oct.,
1903.

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RAILWAY DEVELOPMENT.

(Continued from page 1.)

in a sufficiently definite shape to make any
statement regarding it. The matter is in the
hands of Drummond, McCall & Co., Mon-
treal.

Canada National Ry. and Transport Co.

—Application will be made next session of
the Dominion Parliament for an act reviving
the charter of this Co., authorizing the con-
struction of a railway from Toronto to Col-
lingwood. (June, 1902, pg. 189.)

Cape Breton Ry.—Track had been laid
from Point Tupper to Sporting Mountain, 25
miles, by Dec. 31, and the remaining six

Alphabetical List of Advertisers.

Algoma Steel Co., Sault Ste Marie, Ont.	1
American Locomotive Co., New York	1
A. E. Ames & Co., Toronto	1
Baldwin Locomotive Works, Philadelphia, Pa.	1
Estate of John Battle, Thorold, Ont.	1
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Canadian Pacific Railway Land Department	1
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Dominion Bridge Co., Montreal	1
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Page Wire Fence Co., Walkerville, Ont.	1
Eugene F. Phillips Electrical Works, Montreal	1
The Hiram L. Piper Co., Montreal	1
N. L. Piper Railway Supply Co., Toronto	1
Place Viger Hotel, Montreal	1
Polson Iron Works, Toronto	1
J. W. Pyke & Co., Montreal	1
Queen City Oil Co., Toronto	1
Railway and Shipping World, Toronto	Cover
Rhodes, Curry & Co., Amherst, N.S.	1
Russell House, Ottawa	1
St. Thomas Brass Co., St. Thomas, Ont.	1
Safety Car Heating & Lighting Co., New York	1
Simplex Railway Appliance Co., Montreal	1
Toronto Engraving Co., Toronto	1
Travelers' Insurance Co., Montreal	Cover
Westinghouse Manufacturing Co., Hamilton	Cover
Wire & Cable Co., Montreal	Cover

miles to St. Peters, N.S., was expected to be
completed early in the year. Ballasting,
fencing and station building is progressing,
and is expected to be completed early in the
spring. The extensions projected are from
St. Peters to Louisburg, 60 miles, and from
Marian Bridge to Sydney, 13 miles.

On Dec. 30 the temporary construction
bridge over the River Inhabitants collapsed,
and an engine, with several cars of material,
went through, the driver being killed. (Jan.,
pg. 19.)

Causapsal to Gaspé.—Application will be
made next session of the Dominion Parliament
for the incorporation of a company to con-
struct a standard or narrow gauge railway,
to be operated by any kind of power, from
the I.C.R., between Causapsal and Little
Metis, and Gaspé Basin, Que. The promo-
ters ask for very wide general powers.
D'Arcy Scott, Ottawa, is solicitor. In 1902
application was made for the incorporation of
a company to construct a railway between
the same two points, but the bill was with-
drawn from the consideration of the Railway
Committee of the House of Commons. (See
Atlantic, Quebec and Western Ry., pg. 38
and Jan., pg. 19.)

Central Ontario Ry.—Press reports re-
cently stated that an extension of 40 miles
from Bancroft, the present terminus, to Whit-
ney, on the Canada Atlantic Ry., was con-

templated. We are officially informed that nothing whatever has been done in reference to the matter, and there is no prospect whatever of getting on with the work at present. (June, 1902, pg. 189.)

The Central Ry. of New Brunswick resumed a through passenger service on Dec. 20, the line having been put in thorough repair after the fall of the bridge at Washade-moak in July. (Aug., 1902, pg. 263.)

The Cuba Co., having opened its line, is proceeding to ballast and improve it to meet the traffic requirements as they grow. In developing the country opened up by the line Sir Wm. Van Horne is following, in a general way, the policy which he applied to the C.P.R. in colonizing Northwestern Canada. Sugar and fruits are his chief hope, though he expects to develop the capacities of Cuban farming in a dozen different directions. Much of the territory opened up has never been scratched even by the wooden plough. (Jan., pg. 20.)

Cumberland Ry. and Coal Co.—The relaying of 20 of the 32 miles of the Co.'s line, with 80-lb. rails, replacing 56-lb rails, has been completed. (Nov., 1902, pg. 381.)

Chateaugay and Northern Ry.—A contract has been let to C. E. Loss, of New York, for the grading, bridging, etc., of 38 miles from Montreal to Joliette, Que., on the Great Northern Ry. A sub-contract for the substructure of the bridge at Bout de l'Isle has been let by C. E. Loss to Shearer & Co. The material for the superstructure is being constructed by the Dominion Bridge Co., Montreal. The whole work is required to be completed by Oct. 1. L. R. Ord is Chief Engineer in charge of construction. (Jan., pg. 20.)

Digby and Sydney Ry.—A. J. S. Copp, M.P., Digby, N.S., is one of the promoters of this projected line. The object in view, he says, is to bring Sydney as near as possible to New York, and the proposal is to construct a line from Digby to Windsor Jct., and thence to Mulgrave and to run a line of fast steamers, in connection with the train service, from Digby to Eastport, or to Portland, Me. Efforts are being made to secure the necessary steamer facilities at Digby, and plans for the wharf extension necessary are being prepared by C. E. W. Dodwell, Dominion engineer, Halifax. The cost of this work is estimated at \$50,000. (Jan., pg. 21.)

Drummond Colliery Ry.—Track was laid to Dec. 31, on 1½ miles of the extension under construction from Granton to Skinner's point, N.S., 2.3 miles. J. W. McDonald, Stellarton, N.S., is the contractor. (Nov., 1902, pg. 381.)

Elgin and Havelock Ry.—P. S. Archibald, C.E., has been making an inspection of this line for the new owners with a view of its being put in proper order.

Edmonton, Yukon and Pacific Ry.—Three trains each way are being operated between Strathcona and Edmonton, daily except Sunday, the trip being made in 15 minutes. Application will be made at the next session of the Dominion Parliament for an extension of time for the construction of the authorized lines. (Jan., pg. 21.) See also Canadian Northern Ry.

The Frank and Grassy Mountain Ry. has been constructed under the act passed by the Dominion Parliament in session of 1902, incorporating the United Gold Fields Co. (Ltd.), a British company, to construct a railway from Frank to Grassy Mountain, Alta., with branches to connect with any navigable water not more than 8 miles distant from the line. The line is in operation from Frank, on the Crow's Nest Pass line of the C.P.R., 197 miles west of Dunmore Jct., and 2 miles east of Blairmore, northerly to the foot of Grassy Mountain, about 6 miles. The line is carried

along the banks of the creek, and touches the Gold creek collieries, and is being utilized to ship the product of the mine. The railway is a mountain line in every particular, and in its construction presented a considerable number of engineering difficulties. The Co. supplied the rails, spikes, etc., which were imported from France. H. Darras, of Frank, Alta., was the general contractor, and sub-contracts were let to Messrs. Poupore, McVeigh and Tierney, of Nelson, B.C. J. E. Woods, C.E., Frank, Alta., had general charge of construction. (Nov., 1902, pg. 387.)

Fraser River Bridge.—We were advised, Jan. 8, that pile piers 6 to 11 inclusive had been completed up above high water mark. The caissons for pier 5, which is the pivot pier for the drawspan, has been placed in position and sunk several feet. The abutments and pedestals for the north approach on the New Westminster side of the river are about all in place. Good progress is being made by the Dominion Bridge Co., of Montreal, in the manufacture of the superstructure. The greater portion of the metal required for the entire superstructure has been delivered at the shops. Waddell and Hedrick, the engineers, expect that the structure will be completed within the original contract time. (Jan., pg. 21.)

Gaspe and Western Ry.—Application will be made next session of the Dominion Parliament for an act incorporating the Gaspe and Western Ry. Co. to construct a railway or tramway from Fraserville, on the I.C.R., to Gaspe Basin, Que., as near as practicable to the coast, with power to connect with other lines, and to take over the Atlantic and Lake Superior Ry. E. Lapointe, Fraserville, Que., is solicitor for applicants. See Atlantic and Lake Superior Ry., Atlantic, Quebec and Western Ry., and Causapscal to Gaspe.

Grand Valley (Electric).—The length of track laid on the first section of the line from Brantford to Paris is 6 miles, and the projected extension from Paris to Galt is 20 miles in length. (Jan., pg. 21.)

The Great Northern Ry. of Canada has under survey the following branches: from St. Jerome to St. Sauveur, Que., on the Montford and Gatineau Ry., recently acquired by the G.N.Ry., 13 miles; from St. Catherine's to Garneau Jct., Que., 58 miles; from Hawkesbury to South Indian, Ont., 38 miles. (Jan., pg. 21.)

Great Northern Ry., U.S.A.—J. F. Stevens, Chief Engineer, is reported to have said in a recent interview: "No, I do not know that it is Mr. Hill's intention just at present either to invade the Northwest wheat belt or the Province of British Columbia either."

The Great Falls and Canada Ry., from Great Falls, Mont., to Sweet Grass on the International boundary, was taken over by the G.N.Ry. Jan. 1, the gauge having been standardized, and is being operated as a part of the Kalispell division. (Jan., pg. 21.)

See also Vancouver, Victoria and Eastern Ry. and Navigation Co.

Greenway to Turtle Mountain.—Application will be made next session of the Manitoba Legislature for an act incorporating a company to construct a line from Greenway, on the Canadian Northern Ry., south and southwesterly through the municipalities of Argyle, Roblin and Turtle Mountain to tp. 1, range 19, west of the principal meridian. R. B. Graham is acting for the promoters.

Guelph Ry. (Electric).—J. S. Clark has asked the Guelph city council to take \$25,000 of preference stock or make a cash bonus of \$15,000 towards the construction of the projected extension to Puslinch lake and Hespeler, Ont.

Halifax and Southwestern Ry.—Some excitement has been occasioned at Hubbard's Cove on account of a difference between J. A.

Wheaton, of St. John, N.B., contractor, and his Italian employes. Mr. Wheaton was behind in his payments to the men, but his other accounts were paid up, and the men demanded that they should also be paid. A settlement was reached when the representatives of Mackenzie, Mann & Co. provided the money, \$4,000, to pay the men. Mr. Wheaton claims that the work he has done is being unfairly classified by the Co.'s Chief Engineer of Construction, T. H. White, and not in accordance with the verbal understanding with T. H. Holt, the former Manager of Construction, and H. K. Wicksteed, C.E., under whom he was set to work at Hubbard's Cove, the plans for the section he had contracted for not having been approved of. He says Mr. White was unaware of the understanding and acted on the letter of the agreement. (Jan., pg. 21.)

Huron and Ontario Ry.—Application will be made at the ensuing session of the Dominion Parliament for an act extending the time for the commencement and completion of the line authorized, and if necessary, to revive the act of incorporation. M. McNamara, Walkerton, Ont., is President, and A. McK. Cameron, Meaford, Ont., is Secretary of the Co., which was incorporated in 1892 to construct a railway from Port Perry to Kincardine, Ont., via Uxbridge, Mount Albert, Newmarket, Bradford, Beeton, Shelburne, Flesherton, Priceville, Durham and Walkerton; from Priceville, through Meaford, Owen Sound, Southampton, Port Elgin and Tiverton to Kincardine, and from Walkerton to Goderich.

Huron, Grey and Bruce Electric Ry.—The surveys for this line were made by N. H. Green, of Montreal, who reports that the engineering difficulties are comparatively insignificant, the route being fairly level; some hills in the northern part of the district to be served will require to be cut down and improved, but all is provided for in the estimated cost. The highway bridges are generally strong, but, in some cases, will require strengthening; and in some cases, where old, new ones will be required within a short time. The estimated cost of the line is \$11,000 a mile. It is proposed to develop power on the Maitland and Saugeen rivers, with substations for converters at Goderich, Holmesville, Brucefield, Dunganon, Manchester, Walton and Morrisbank. The first section proposed to be constructed is from Goderich to Dunganon, 13 miles, the estimated cost being—construction of track, \$68,000; electrical construction, \$25,200; equipment, \$14,000; power house, \$20,000; contingencies, \$15,800; total, \$143,000. (Jan., pg. 23.)

The Imperial Coal Co., operating coal mines near Coal Branch, N.B., is considering the construction of 8 miles of line from its mine to Coal Branch, on the I.C.R., and a similar length of line from the mine to Kingston, where it is proposed to establish a shipping port. G. G. Polleys, Moncton, is interested in the company, which proposes to apply for a charter authorizing the construction of the lines at the ensuing session of the New Brunswick Legislature.

Intercolonial Ry.—The Minister of Railways, speaking recently at Campbellton, N.B., referred to his desire to have the I.C.R. extended to Georgian Bay, to Toronto, to various parts of Ontario, and later, if the ground was not then altogether occupied, across the continent to the Pacific coast. The Montreal Board of Trade has passed a resolution asking for the construction of a short line from near Chaudiere Jct., Que., direct to St. John, N.B., and for an extension west from Montreal to Toronto and a point on Georgian Bay. The Minister of Marine on his return to Montreal, after a conference with the Premier, stated in an interview that one of the subjects which would be consider-

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CHARLES MILLER,
PRESIDENT.

ed by the Ministers prior to the meeting of Parliament in March would be a proposed extension of the I.C.R.

The Minister of Railways recently stated to a Toronto Globe representative that the surplus earnings of the I.C.R. would be devoted to improving the railway still further. A large sum had already been spent out of revenue for this purpose, but it was desired to straighten out the line in many places and to add to the rolling stock. All the large improvements contemplated had been carried out, except it be to erect hotels wherever needed, and that, the Minister added, he thought was not a matter for the Government to undertake.

Tenders are under consideration for 25,000 tons of 80 lb. steel rails, and for ties and switch-ties.

Tenders have been received for the following works: new station, moving and remodeling existing station, and moving freight house and section foreman's dwelling at Metapedia, Que.; abutments for two railway bridges with full foundations at Pomquet, N.S.; baggage building at Sydney, N.S.; station building and freight house at Milford, N.S.; coal handling plant at Moncton, N.B.; engine house at St. John, N.B. A contract for this last mentioned work was previously reported let to Rhodes, Curry & Co., Amherst, N.S., but it appears that the contract was not completed; it is now reported that the contract has been awarded to Flood & Bates, St. John, for \$72,000.

It is proposed to double track the line from Halifax to Windsor Jct., 13 miles, in the spring.

Plans are reported to have been prepared for the installation of an electric light plant at Halifax station, of sufficient power to light the whole of the terminals.

Reid & Archibald, of Halifax, N.S., have been engaged in altering and repairing the piers of the bridge over the Grand Narrows of the Bras d'Or lakes, N.S., in regard to which there were some complaints of interfering with navigation.

The rest house for employes at Truro station, N.S., has been fitted up, and was opened early in Dec. There is a reading room, a smoking room, a bath room, and a dormitory containing six beds. Rest houses are being fitted up at other stations on the system.

The work at the yard at Gilbert island, St. John, N.B., laid out for the season, was completed early in Dec. Six miles of additional track were laid, which gives accommodation for 480 cars, bringing the capacity of the yard up to 1,300 cars. It is proposed to further add to the accommodation this year, so as to give a capacity for 2,000 cars. The breakwater on the Courtenay bay section of the line at St. John is to be repaired and strengthened, and some portions will be rebuilt.

A contract has been let to J. Goselin, of Levis, Que., for the erection of an 18-stall brick roundhouse at Chaudiere Jct., Que., at a cost of \$44,200. (Nov., 1902, pg. 383.)

Tenders are under consideration for a one story, monitor-top extension to the existing car shop at Moncton. The extension will be 200 ft. long, 75 ft. wide, and 24½ ft. high. It will cover three tracks and will be built of brick with foundations of stone or concrete. The roof will be supported by steel trusses spaced about 16½ ft. centres, giving a clear floor space the full width of the building. The roof is designed to carry three travellers, one over each track, running through the building; these travellers will have a capacity of 3 tons each. Light will be supplied through large windows in the side walls and monitor top. The building will be equipped with all facilities necessary for the building and re-

pairing of freight cars. The contract has not yet been awarded, but will be in a short time, and the work will be pushed forward to completion with as little delay as possible.

The International Bridge and Terminal Co. has filed articles of incorporation in Minnesota, its object being to construct a railway in Itasca county, Minn., and a bridge across Rainy river, to connect with Canada. W. Gray, A. A. Avery, E. L. Hollingsworth, W. C. Meader and C. H. Miller, of Minneapolis, Minn., are the incorporators of the Co., which has a capital of \$50,000. No reference is made as to the point on Rainy river aimed at, but it is probable that it is Koochiching, opposite Fort Frances on the Canadian Northern Ry.

International Transit Co.—The Co.'s tracks on 4½ miles of streets in Sault Ste. Marie, Ont., have been completed. (Nov., 1902, pg. 383.)

Inverness Ry. and Coal Co.—W. MacKenzie recently paid a visit of inspection over the Co.'s railway from Point Tupper to Broad Cove, N.S. It is proposed to erect a station at the junction of the line with the I.C.R. at Point Tupper, and to commence early in the season relaying the line with heavier rails. During last year a good deal of ballasting was done all along the line, to meet Government requirements and to strengthen the track for the increasing traffic. The projected extension from Broad Cove to Cheticamp was under consideration, but nothing definite has been announced in regard to it. The Co.'s shipping pier at Port Hastings is completed. It is 600 ft. long, and is carried to a height of 65 ft. above low water-mark. It is provided with coal pockets capable of holding 4,000 tons of coal, with an extensive and modern plant for handling coal from the cars, and for loading vessels alongside the pier. (Nov., 1902, pg. 383.)

James Bay Ry.—The station in Parry Sound has been completed and the track laid into it and into the yard adjoining. The survey parties that were in the field during the past fall between Parry Sound and French river have completed their work and are preparing plans, upon which definite location surveys will be made. Two routes were surveyed between Canal rapids and French River. The distance between Parry Sound and French River is 60 miles. Application will be made at the next session of the Dominion Parliament for an extension of time for the completion of this line. (Nov., 1902, pg. 383.)

Joliette to Lake Manuan.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a railway from Joliette northerly to Sainte Emile de l'Energie, thence northwesterly to Saint Michel des Saints, and thence to Lake Manuan, Que. D. J. McDougal, Ottawa, is solicitor.

Kent Northern Ry.—Since the new owners came into possession it is reported that a good deal of work has been done to put the line in thorough repair. The track between Kingston and Richibucto, N.B., has been repaired; new ties have been put in on several sections and a lot of gravel ballast has been spread. The new engine-house has been completed, and other work has been done at Richibucto.

Application will be made next session of the New Brunswick Legislature for an act authorizing the extension of the line from Kent Jct., on the I.C.R., through the counties of Kent and Queens, to Chipman, where a junction will be effected with the Central Ry. of N.B.

Kettle Valley Lines.—W. A. Stratton, who is in charge of the operations of these lines, states that over \$100,000 has been expended in improving the Co.'s lines during the past few months, and that the road is now all that

can be desired and as good as any in the West. A passenger and freight station will shortly be erected at Republic, Wash. (Nov., 1902, pg. 383.)

Kingston and Gananoque Electric Ry. Co.—Application will be made next session of the Ontario Legislature for an act re-incorporating this company, which was first incorporated in 1895, and extending the time for the commencement and completion of its line.

The Kingston and Pembroke Ry. will apply at the ensuing session of the Dominion Parliament for an extension of time for the commencement and completion of the various lines authorized by its acts. The uncompleted lines are branch lines east and west from the main line. The K. and P. R. is owned by the C.P.R. Co. (Nov., 1902, pg. 383.)

The Kingston, Portsmouth and Cataraqui Electric Ry. has extended its line to the Queen's athletic grounds, Kingston, Ont.

Klondike Mines Ry.—C. E. Taylor, of the White Pass and Yukon Ry., on reaching Vancouver, B.C., from the north, at the close of navigation, stated that two miles of track had been laid on the K. M. Ry. from Dawson and that a locomotive had been placed in service. The work of construction has been abandoned until the spring, when the rest of the material, rolling stock, etc., will be taken in by boat from Whitehorse. (Nov., 1902, pg. 383.)

Kootenay, Cariboo and Pacific Ry.—Application will be made at next session of the B.C. Legislature for an act incorporating a company with this title to construct a railway from Golden, on the C.P.R., northwesterly to Tête Jaune Cache, thence to Port Simpson, with authority to construct branches to Barkerville and other points. Harvey & McCarter, solicitors, Fort Steele, B.C., who are acting for the promoters, have also given notice that application will be made to the B.C. Legislature at the ensuing session for the provincial incorporation of the company.

Kootenay Pass and Fort Churchill.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a railway from the eastern boundary of British Columbia, at South Kootenay pass, to Fort Churchill, on Hudson's bay, via Cardston, Battleford and Prince Albert. Power is also asked to connect with the railway system of the U.S. McGovern and Haydon, Ottawa, are the solicitors.

L'Amable to Mayo Township. (Electric).—The Mineral Range Iron Mining Co., of Mayo Township, Hastings Co., Ont., proposes to construct an electric railway from L'Amable station, on the Central Ontario Ry., to its mines, about 10 miles.

Lac Seul, Rat Portage and Keewatin Electric Ry.—C. W. Chadwick, Rat Portage, gives notice that application will be made next session of the Ontario Legislature for an act incorporating a company to construct an electric railway from Lac Seul southerly through Rat Portage, and the township of Keewatin to Shoal Lake. The Co. also proposes to develop and sell electric power. It is reported that survey parties are in the field prospecting a route from Rat Portage to the narrows of Black Sturgeon lake. A by-law has been approved of by the Rat Portage Council granting a franchise within the town; the Co. to construct its own roadbed south of the Government road round the north end of the bay.

Lake Erie and Detroit River Ry.—Three survey parties are in the field running preliminary lines for the extension of the line from St. Thomas to Fort Erie, Ont. One party under W. W. Meadows, Assistant Engineer, is surveying from St. Thomas to Simcoe, a point which the line has to touch to meet the

requirements of its act; a second party, under J. Simpson, is working between Simcoe and Dunville on the G.T.R., and the third party, under W. Osborne, is running a line straight through from Simcoe to the Niagara frontier. We were advised Dec. 12 that the running of these preliminary lines was practically completed. Nothing definite will be decided as to the route until the reports of the engineers on their surveys are completed. Construction will be pushed forward as soon as the route is definitely settled, and the necessary right-of-way acquired, which will probably be some time in the spring. The surveys, etc., are being carried out under the charge of Owen McKay, Chief Engineer.

Changes in the line at Dresden, Wallaceburg and Sombra have been completed. There have been some slight deviations from the old line in order to do away with bad curves. In all about $2\frac{1}{2}$ miles of new track was laid, and the station buildings moved; Dresden and Sombra short distances, and Wallaceburg a considerable distance.

The St. Thomas City Council has granted permission for the extension of the Co.'s tracks across Palm st., to a connection with the Michigan Central Ry. The new owners of the line have entered into an agreement with the M.C.R. by which the L.E. & D.R. Ry. will transfer the Pere Marquette traffic at St. Thomas.

A switch has been put in at Sheddon connecting with the Michigan Central Rd.'s tracks, to facilitate the interchange of traffic from the west.

The sidings at the different stations along the line from Sarnia to St. Thomas are being lengthened, and an additional mile has been added to the sidings at Chatham. (June, 1902, pg. 103.)

Lake Timiskaming to Mechiskan River.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a dam across the southern outlet of Lake Timiskaming, near the C.P.R., and a railway from the north end of the lake northerly to the Mechiskan river, at the 49th parallel of north latitude, with power to construct branch lines, 30 miles in length. Caron & Sinclair are the solicitors.

Levis County Ry. (Electric).—Work has been suspended on grading and tracklaying for the season, three miles of track having been laid in the town of Levis, on which cars are running. The Co. has under construction a line from Levis to St. Joseph, and another from Levis to St. Romuald, together 8 miles, and has in contemplation further extensions of 4 miles. An elevator from the foot of Labadie Hill to Wolfe st., was expected to be completed early in Jan. (Nov., 1902, pg. 383.)

London, Aylmer and North Shore Electric Ry.—A company with this title was recently incorporated at Albany, N.Y., with a capital of \$500,000, to construct an electric railway from London to Port Burwell, Ont., and was subsequently licensed in Ontario as an extra provincial company, W. E. Stevens, Aylmer, Ont., being named its attorney. The line which the company proposed to construct was authorized by an act of the Ontario Legislature passed in 1901, the officers of the company being: President, R. M. Luton, Grand Rapids, Mich.; Vice-President and Treasurer, M. E. Lyon, Aylmer, Ont.; Secretary, C. R. Lubon, Grand Rapids, Mich.; Assistant Secretary, E. E. Stevens, Aylmer, Ont. To these under the Albany incorporation have been added as directors: C. Sinclair, Aylmer, Ont.; W. A. Dowland, Grand Rapids, Mich.; J. H. Hitchcock, J. E. Howard, New York city; F. Hitchcock, F. Hassler, Detroit, Mich. A construction company has been formed in Detroit, Mich., with F. Hassler as chairman; M. E. Lyon, Treasurer; C. R. Luton, Secretary; F. M. Hitchcock, Assistant

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Length of tunnel, including approaches, 11,553 feet. 10,000 barrels **THOROLD CEMENT** used in construction.

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From Joseph Hobson, Esq., Chief Engineer G. W. Div.
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OCT. 17, 1893.

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FOR STONE MASONRY WORK, as shown in the above views, our **THOROLD CEMENT** is specially adapted, and in price is about one-half the cost of high-grade **PORTLAND CEMENTS**.

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Secretary and Purchasing Agent, and P. J. Davis, attorney. Surveys have been made for the line, which will be about 45 miles in length, by Field & Hinchman, Detroit, and plans have been prepared. E. Arizpe was in charge of the surveying party. It is expected that construction will be commenced on an early date. (Oct., 1901, pg. 308.)

London St. Ry.—An agreement has been reached between the L. S. Ry. and the Southwestern Traction Co., by which the latter obtains an entrance into the city. The L. S. Ry. will construct about 3,500 ft. of track to connect with the two lines. (Nov., 1902, pg. 383.)

Lotbiniere and Megantic Ry.—Application will be made next session of the Quebec Legislature for an act extending the time for the completion of this Co.'s lines, and to authorize the construction of a branch from this extension from Kinnear's Mills or St. Ferdinand d'Halifax to Lime Ridge and to Windsor Mills, Que. The uncompleted portion of the Co.'s line is from Lyster to Thetford. (Nov., 1902, pg. 383.)

Mabou and Gulf Ry.—We were advised, Jan. 3, that the 4½ miles from the Mabou coal mines to the shipping pier at Mabou Harbor, N.S., had been completed, and that the coal pockets and trestle, 654 ft. long, were nearly complete. The line is being extended from the shipping pier to a junction with the Inverness Ry. and Coal Co.'s line, about 3½ miles. Surveys have been completed for the extension of the line from the I. Ry. and C. Co.'s line to the I.C.R. at Orangedale, about 34 miles, and construction will be started early in the spring. The Co. has entered into the usual construction contract with the Provincial Department of Public Works. Location surveys have been completed for a line, about 5 miles in length, from the junction of the I.C.R. and the I. Ry. and C. Co.'s line, on the Strait of Canso, to Port Malcolm, and construction was expected to be started at once. At Port Malcolm a shipping pier, 800 feet in length, fitted with coal pockets, etc., is to be erected. Port Malcolm is a good harbor, never frozen over, and can be utilized as a shipping port every day in the year. The Co. expects to commence shipping coal early in the spring. It has three seams, 7, 8 and 15 ft. thick respectively, and the slopes are down 450 ft. All the work is being done by the Co. under the supervision of its Chief Engineer, F. R. Page. The Co. has erected an office building, 80 by 58 ft. at Northwest Mabou. (Nov., 1902, pg. 383.)

The Manitoba Cement Co. will construct a railway from Morden southerly, about 12 miles, to the marl deposits on the Pembina river, near the International boundary. The Co. was incorporated by the Manitoba Legislature in 1900, and includes among its directors G. M. Bosworth, 4th Vice-President, C.P.R.; W. Whyte, Assistant to the President, C.P.R. It is reported that surveys will be made on an early date, and that construction will be commenced immediately the surveys are completed.

Manitoba Central Ry.—C. E. Hamilton, of St. Paul, Minn., at one time Attorney-General of Manitoba, has given notice that application will be made next session of the Manitoba Legislature for an act incorporating a company to construct the following lines of railway: from Winnipeg to Emerson; from Winnipeg to Beausejour, and to Fort Alexander at the mouth of Winnipeg river; from Winnipeg to the western boundary of tp. 9, range 15, thence via Brandon and Souris to the westerly boundary of the Province; from Emerson to Lake Winnipegosis, via Carman and Portage la Prairie; from Emerson to the westerly boundary of the Province, via Crystal City and Lauder, with branches to the southern boundary of the Province; from Morden

southerly to the International boundary, and northwesterly to Carberry, thence via Neepawa to the northern boundary of the Province, and via Rapid City to the western boundary of the Province, and from Brandon to the International boundary. In an interview Mr. Hamilton said these several lines would be constructed by a company to be known as the Manitoba Central Ry. Co., and that it would be an independent company.

Manitoulin and North Shore Ry.—F. H. Clergue stated a short time since that the surveys for this line had been completed, that construction would be commenced on an early date, and that the contracts would provide for the completion of the work in two years. There would be three divisions, viz., from Meaford to Tobermory; from Fitzwilliam, on Manitoulin island to Sudbury, and from Sudbury to Sault Ste. Marie, Ont. The 15-mile link between Tobermory and Fitzwilliam will be operated by a car ferry. The Gore Bay (Manitoulin island) Conservator recently stated that no survey had been made across Manitoulin island. Another statement is to the effect that location surveys for the line to the shore of Georgian Bay have been completed and that the survey parties have returned to Sault Ste. Marie. The line as projected will cross the C.P.R. Sudbury branch at Stanley river, and from the shore of Georgian bay, will be carried over some small islands into Little Current, on Manitoulin island, the distance from Sudbury to Little Current being 66 miles, of which about 16 miles has already been constructed. The surveys, which are reported to have been completed from Sudbury to Sault Ste. Marie, show a line from near the falls of the Spanish river, in as near a straight line as possible at a distance of from 6 to 12 miles north of the C.P.R. tracks to the boundary between Aberdeen and Galbraith townships where alternative routes have been surveyed, about six miles apart, joining about three miles east of Garden river station on the C.P.R. and paralleling that line into Sault Ste. Marie.

Tenders for the construction of the following sections of the line were recently asked: Meaford to Tobermory, about 70 miles; Fitzwilliam island to Gertrude mines, about 70 miles; Sudbury to Sault Ste. Marie, about 180 miles. Contracts had not been reported let to Jan. 20, but it was stated that financial arrangements made by the Consolidated Lake Superior Co. were such as would permit of the early commencement of the work. (Nov., 1902, pg. 383.)

The Medicine Hat and Northern Alberta Ry. Co. gives notice of application at next session of the Dominion Parliament for an act extending the time for the construction of the Co.'s line from Medicine Hat to Victoria on the North Saskatchewan river, and authorizing the construction of the following additional lines: from Medicine Hat to the International boundary, near Milk river; from the main line to Ponoka station, on the Calgary and Edmonton Ry., thence to Rocky rapids, on the North Saskatchewan river; from Battle river to Hudson's Hope, on the Peace river; from the Athabasca river to Lesser Slave lake, at the mouth of Drift Pile river; from Strathcona, via Edmonton, to Athabasca landings, and from Battle river to Water Hen lake. (June, 1902, pg. 194.)

Metropolitan Ry.—Negotiations are still pending with the Toronto city council with a view of securing an entrance into the city. (Nov., 1902, pg. 383.) See also Toronto Radial Railways.

Michigan Central Rd.—The double track between Bismarck and Ridgetown has been completed. There are now only 30 miles of single track at the west end, and 40 miles at the east end of the main line of the Canadian division.

A site has been selected for a new station

at Dutton, and construction will be commenced in the spring.

Press reports state that about 60 acres along the right of way will be planted with catalpa trees, for use in the future as ties. (Nov., 1902, pg. 383.)

Middlesex and Elgin Interurban Ry. (Electric)—Press reports state that it is intended to proceed, at an early date, with the construction of a line from St. Thomas to Port Stanley, Ont. (Nov., 1902, pg. 384.)

Middleton and Victoria Beach Ry.—We were recently informed that 8 miles of the line had been graded, and that the grade to Bridgeton, 14 miles, would be completed when operations ceased for the winter, ready for tracklaying and ballasting in the spring. (Aug., 1902, pg. 265.)

Midland Ry. of Nova Scotia.—The matters of the extension of the line from Truro to Brule or Tatamagouche, and from Windsor to Middleton, are still under consideration. An extension from Truro to New Glasgow is also under discussion in a general way, but no definite plans have been considered. (Nov., 1902, pg. 384.) See also North Colchester Ry.

Midway and Vernon Ry.—Victoria, B.C., press reports state that it is the intention of this company, now incorporated by the B.C. Legislature, to apply for a Dominion charter next session of Parliament. The necessary notices had not been published up to Jan. 24. (Nov., 1902, pg. 383.)

Minnedosa Electric Railways.—Application will be made next session of the Manitoba Legislature for an act incorporating a company to construct electric railways within a radius of 50 miles of Minnedosa, and to develop electrical power for the same and for general purposes on the Little Saskatchewan river in tp. 15, range 18 west of the principal meridian. H. F. Maulson, Minnedosa, is the solicitor.

Montreal Street Ry.—The tracks have been extended on Frontenac st. to the eastern abattoir. Proceedings have been taken by the city council to compel the Co. to construct a number of additional lines. The Co. says it will build a line on Charlevoix ave., but considers the others not only unnecessary but impracticable. (Nov., 1902, pg. 384.)

Montreal Subway Co.—Plans have been filed with the Dominion Department of Railways for a tunnel under the St. Lawrence river to connect Montreal and Longueuil. The plans provide for a double track tunnel from the south shore into the heart of Montreal, where a central station will be located. The width will be 27 ft., and the height 21 ft. Its gradients will be 1½ to 2%, and its greatest depth will be 15 ft. below the mean level of the river bed. The structure will be of concrete and stone masonry with a lining of enamel brick. The tunnel will pass through St. Helen's island, where there will be a substation with stairs to the surface. A point for entering the city has been selected; a route under the streets has been surveyed, and a locality for the central station is in view, but these conditions are subject to approval and are withheld at the present stage. H. A. Hodge, President of the Quebec Southern Ry., and also of the Subway Co., says the tunnel will be open to any railway desiring to secure an entrance into Montreal. (Nov., 1902, pg. 384.)

Montreal Terminal Ry. (Electric).—The Railway Committee of the Privy Council recently had before it the question of the opening of Forsyth st. and the construction of a tunnel under the C.P.R. tracks at that point, and made certain recommendations in connection with it. An agreement dividing the cost of the work between the Co. and the city council has been arrived at, the council paying two-thirds of the cost, which is estimated at about \$30,000. This agreement has been

ratified by the Railway Committee of the Privy Council. The subway will provide room for a single track only. The subway will be constructed at once, and the Co. expects to have its lines fully in operation in April. (Nov., 1902, pg. 384.)

The Nelson Electric Ry. ceased operations some time ago. H. E. Croasdale, Managing Director, stated that a 40-minute service would be given on operations being resumed. The city council, however, are considering the question of whether or not the Co.'s franchise has been forfeited.

The Nepigon Ry. has invited tenders for the supply of 30,000 ties and 1,000,000 ft. of logs to be delivered on the right of way in the spring. The Co. was incorporated by the Ontario Legislature in 1899 to construct a railway from Nepigon station, on the C.P.R. transcontinental line, 928.3 miles from Montreal, northerly to Lake Nepigon, about 40 miles, and in 1902 it was given power to extend its line to the Albany river. A subsidy of \$3,000 a mile for the first 14 miles from Nepigon was voted by the Ontario Legislature in 1902. Dominion incorporation was also obtained in 1902. The incorporators of the company are interested in a proposal to erect pulp and paper mills on the Nepigon river. (June, 1902, pg. 195.) See also Canada Fish Co., Jan., pg. 19.

New Brunswick Coal and Ry. Co.—Several miles of track have been laid on the 15 miles of grade completed from Chipman to the Newcastle coalfields. The rails being used have been obtained from the I.C.R., which has been replacing light rails with 80-lb. steel. At the coalfield a new town has sprung up, which has been called Minto. (Nov., 1902, pg. 384.)

The New Brunswick Southern Ry. is the title under which the Shore Line Ry. of New Brunswick is now being operated. The N.B.

S.Ry. Co. was incorporated by an act passed at the last session of the N.B. Legislature. The line is in operation between St. John and St. Stephen, 82 miles. Considerable repairs have been made on the roadbed, four new bridges have been built, the abutments of others strengthened, and it is reported that the other bridges will be rebuilt this year. (Nov., 1902, pg. 386.)

Newfoundland.—Press reports state that it is proposed to construct a railway along the beach from Sandy Point, Bay St. George, Nfld., to the mainland.

New Westminster to Ladner or Port Guichon.—Application will be made at the ensuing session of the B.C. Legislature for an act incorporating a company to construct a railway from New Westminster, southwesterly across the Fraser river, through the municipalities of Surrey and Delta to Ladner or Port Guichon, and a ferry service in connection therewith. Corbould and Grant, New Westminster, B.C., are the solicitors.

Niagara-Grand Island Bridge Co.—Application will be made next session of the Dominion Parliament for an act extending the time within which the Co. may commence and complete its undertaking. The Co. was incorporated in 1873 to construct a bridge from Black Creek, Ont., across the Niagara river, and the time for construction has been extended at various times to keep the charter alive. Some work was reported to have been done at the end of 1901. (Dec., 1901, pg. 357.)

Niagara, Queenston and St. Catharines Electric Ry. Co.—Application will be made next session of the Ontario Legislature for an act incorporating a company with this title to construct an electric railway from Niagara-on-the-Lake, along the Niagara river road to Queenston, thence along the Queenston and Grimsby stone road to St. Catharines; from

Homer to Niagara, and along such streets in St. Catharines as may be necessary; also confirming by-laws of the county of Lincoln, the town of Niagara, and the townships of Niagara and Grantham giving franchises to the company, and authorizing St. Catharines to grant a franchise. Denton, Dunn and Boulton, Toronto, are the solicitors.

Niagara, St. Catharines and Toronto Ry.—An application of the Co. for permission to connect its tracks with the section of the Southern division of the G.T.R. leased to the Wabash Rd., was made at the last sitting of the Railway Committee of the Privy Council. The G.T.R. opposed the application and the committee reserved judgment. (Aug., 1902, pg. 266.)

Niagara Transfer Co.—Articles of incorporation have been filed at Buffalo, N.Y., for a company with this title to construct a steam railway from Buffalo to Tonawanda, N.Y. The incorporators are J. C. Conway, W. H. Alport, T. C. Becker, A. L. Becker, L. A. Groat, G. W. Hickok, L. F. Nassen, J. E. Selkirk and H. Roscheam, of Buffalo. Press reports state that the projected line will form a connection with a Canadian line over a bridge to be constructed over the Niagara river.

Niagara-Welland Power Co.—Application will be made at the ensuing session of the Dominion Parliament for an act changing the name of this Co., increasing its capital stock, limiting the application of the Railway Act thereto, and for other purposes.

Nicola, Kamloops and Similkameen Coal and Ry. Co.—Application will be made next session of the Dominion Parliament for the incorporation of a company with this title, recognizing the B.C. incorporation and authorizing the construction of a railway along the Nicola valley to the C.P.R., thence to Hope

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and to Chilliwack with power to erect a bridge over the Fraser river.

Nipissing and James Bay Ry.—Application will be made next session of the Dominion Parliament for an extension of time for the construction and completion of the authorized lines. (Aug., 1902, pg. 266.)

North Colchester Ry.—Surveys have been completed for a railway from Truro, N.S., where connection would be made with the Midland Ry. to Tatamagouche, across the Cobequid mountains, about 35 miles. Some years ago surveys were made for a line from Truro to Brule, over very much the same country, and it is understood that in the construction of the line the first 18 miles of this old survey will be followed. This would carry the line to Earltown, from which point P. S. Archibald, C.E., recently made a survey via Waugh's river, a little to the west of the survey to Brule, and crossing the Oxford branch of the I.C.R. about a mile above the railway bridge at Tatamagouche. No decision has been reached as to which route will be adopted, but we understand that application will be made for subsidies at the next sessions of the Provincial Legislature and the Dominion Parliament. The Midland Ry. of Nova Scotia controls the charter for the line. (April, 1902, pg. 143.)

North Shore, Power, Ry. and Navigation Co. (Ltd.)—Construction of the 9 miles of line from Seven Islands bay to the falls of the Ste. Marguerite river, Que., has been completed. The line has been constructed throughout up to the highest standard and is laid with 56-lb. rails. At the falls the work of installing a power plant for the Co.'s mills will be finished in the spring, and the principal work of the railway will be the taking in of supplies, material and plant. At Clarke City, on the bay, a large pier is to be erected for shipping purposes. The district which will be opened up by the operations of the Co. is a very rich one, and will necessitate considerable railway construction. The line was constructed by the Co. under the charge of H. Holgate, C.E., of Ross & Holgate, civil engineers, Montreal. (Aug., 1902, pg. 267.)

The Bay of Seven Sisters Islands was named as the Quebec terminus of the Winnipeg and Atlantic Ry., which was incorporated by the Dominion Parliament in 1892. This railway was to start from Winnipeg and was to follow the 50th parallel of latitude, as nearly as possible, except around the head of Lake Nepigon to the Bay of Seven Sisters Islands.

Nova Scotia Eastern Ry.—Negotiations were in progress most of last year between the promoters of this Co., which acquired the charter of the Musquidoboit Ry. Co., and the Government of Nova Scotia, in reference to the construction of the lines authorized. It was understood that an agreement has been reached subject to the approval of the Legislature next session, to subsidize the line to the extent of \$5,000 a mile, instead of \$3,200, provided by Legislative enactment. The lines projected extend from Halifax to the Strait of Canso, via Guysboro', with branches in the Musquidoboit valley, about 190 miles altogether. It is expected that construction will be gone on with this year. (Nov., 1902, pg. 384.)

Nova Scotia Southern Ry.—Among the charters acquired by Mackenzie, Mann & Co., is that of the N. S. Southern Ry., which has power to construct a line from New Germany, on the Nova Scotia Central Ry. to Shelburne. Under this charter grading from New Germany to Caledonia, 22 miles, was practically completed, and the substructure of several bridges put in; and some clearing and grading was done on other parts of the projected line. Last summer Mackenzie,

Mann & Co. put a force at work on the grade between New Germany and Caledonia, clearing it up and finishing the work. Track will not be laid until the spring. (April, 1900, pg. 115.)

Ontario Electric Ry.—Press reports state that surveyors have been three times over the proposed route of an electric railway between Cornwall and Toronto, and that construction will be commenced as soon as the right of way has been obtained from the different municipalities. (April, 1902, pg. 195.)

Orford Mountain Ry.—Early in December a number of men were set to work at Kingsbury, Que., the present end of the line, grading and erecting a lengthy trestle, including a bridge over the Salmon river, on an extension to Windsor Mills. We were informed Jan. 13th that two miles had been graded, and that track had been laid over one mile. The route for the remainder of the extension, $7\frac{1}{2}$ miles, to Windsor Mills, has not been located. Surveys will be completed on an early date and the work will be gone on with as early as practicable. The O. M. Ry. is operated from Eastman, on the C. P. R. line to Kingsbury, 26.50 miles; and when extended to Windsor Mills, will effect a junction with the G. T. R. Last session of the Dominion Parliament the Co. was given an extension of time to complete its line, and the Quebec Legislature, in 1902, extended the time for the completion of the line to Dec. 31st, 1902, subject to certain conditions. (June, 1902, pg. 195.)

Ottawa, Brockville and St. Lawrence Ry.—Surveys for this projected line were commenced at Ottawa in Dec., and had been completed for 25 miles by the end of the year. The line will be about 56 miles in length and will pass through a rich farming country; the earthwork will be light, little or no rock excavation will be encountered. There will be only one bridge of any size required, and this will be at the crossing of the Rideau river. The maximum gradient will be about $\frac{1}{2}\%$, and the maximum curvature will be 2° . The survey at present under way will pass near Manotick, and through Merivale, North Gower, Burritt's Rapids, and North Augusta, but alternative routes are under consideration with a view of serving Richmond, Merrickville, or Bishop's Mills. E. J. Walsh, C.E., Ottawa, has charge of the surveys. The Co. expects to begin construction early in the summer. J. C. Kelly, President, states that the line will be constructed in the most substantial manner, and that the track will be laid with 110-lb. steel rails. The latter part of this statement is hardly likely. (Nov., 1902, pg. 384.)

Ottawa Electric Ry.—A large building has been erected at Chaudiere, in which a storage battery plant is to be installed. The object of the installation is to provide for a sudden call for a little extra power, and to store up the excess when the whole of the power of the generating plant is not being utilized by the cars, etc. (April, 1902, pg. 195.)

Ottawa, Northern and Western Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the completion of the lines authorized under the various acts of the Ottawa and Gatineau Ry., and the Pontiac Pacific Jct. Ry., now amalgamated under this title. The O. & G. Ry. Co. had power to extend its line to some point on James Bay, and the P. P. Jct. Ry. was authorized to construct a line to Sault Ste. Marie, Ont., passing south of Lake Nipissing.

The grading on the extension from Gracefield to Maniwaki, in the direction of James Bay, has been completed for 14 miles. Some rock cuts will be completed during the winter

and tracklaying and ballasting will be commenced in the spring. It is expected that the whole of the 23 miles to Maniwaki will be completed by Sept. or Oct. (Nov., 1902, pg. 385.)

Oxford Jct. to Five Islands.—A number of meetings have been held in South Colchester county agitating for the construction of a railway from Oxford Jct. on the I. C. R., to Five Islands and thence to Truro, with a spur from Five Islands to Parrsboro', N.S. At a meeting at Collingwood, N.S., it was resolved to ask the Dominion and Provincial governments for subsidies amounting to \$10,000 a mile.

The Pacific, Northern and Omineca Ry. will apply next session of the B. C. Legislature for an extension of the time fixed for the commencement and completion of its undertaking. Cornwall and Rogers, Victoria, B.C., are the solicitors. (June, 1902, pg. 195.)

Portage la Prairie to Brandon.—Application will be made next session of the Manitoba Legislature for an act incorporating a company to construct a railway from Portage la Prairie southwesterly to Belmont station on the Morris-Brandon branch of the Canadian Northern Ry., and from Portage la Prairie westerly to Brandon. Anderson and Ormond are the solicitors.

Preston and Berlin Ry.—The line between Preston and Berlin, Ont., 9 miles, has been completed and is to be operated temporarily by steam. The track is laid with 72-lb. rails, and the line will carry freight as well as passengers. During the summer the overhead work for the electrical equipment will be installed, and power will be obtained from the Hamilton Electric Light and Cataract Power Co. (Nov., 1902, pg. 385.)

Prince Edward Island Ry.—Tenders have been invited for the erection of a crib wharf at Murray river in connection with the branch railway now under construction from Charlottetown across the Hillsboro' river. Work on the line, as well as on the bridge over the Hillsboro' river has been closed and will not be resumed until about April. Track has been laid from Murray river to Montague Cross, 21 miles, and part of the ballasting has been completed. Nearly all the grading on the branch, which is 44 miles in length, has been completed. The country through which the branch passes is a difficult one to work in—rocky and rough. There has been a lot of blasting, but no tunnelling. Up to date some 200 ft. of iron spans with stone abutments have been erected. It is expected that the whole work will be completed by the end of the year. W. Kitchen, Fredericton, N.B., is the contractor.

The new station and freight shed at Georgetown has been completed. H. Creamer, North Tryon, was the contractor. (Nov., 1902, pg. 385.)

Quebec and Lake Huron Ry.—Press reports state that surveys will be commenced early in the spring on this projected line from Quebec to French River, Ont., by T. E. Wing and M. E. Evans, of New York. The projected line will be 465 miles in length, 359 miles being in Quebec and 106 in Ontario. R. J. Campbell, of New York, is the chief promoter. (Aug., 1902, pg. 267.)

Quebec and Lake St. John Ry.—A branch line extending from St. Andre Jct., 159 miles from Que., to Metabetchouan, Que., 11 miles, has been completed. An extension of the line has been projected from Chicoutimi to St. Alphonse, about 12 miles.

Coal pockets have been erected at St. Raymond, Que., for the locomotive department, in order to save time in coaling. (Aug., 1902, pg. 267.)

The Quebec and New Brunswick Ry. Co. will apply next session of the Dominion Parliament for an act extending the time for the commencement and completion of its lines,

to enable it to amalgamate with other railway companies and to empower it to construct a bridge over the St. John river either at Connors station or Winding Ledges, N.B. Belcourt and Ritchie, Ottawa, are the solicitors.

Grading operations at Connors, Que., have been abandoned for the season, about three miles being reported completed. At the recent annual meeting Hon. J. Costigan, President, stated that the right-of-way had been purchased, some grading done, and that operations would be resumed Mar. 1. He also stated that a subsidy contract had been entered into with the Dominion Government, that the New Brunswick Government had agreed to enter into a contract, and that all that was required was the assurance of a subsidy from the Quebec Government. (Nov., 1902, pg. 385.)

Quebec Bridge.—The substructure for the bridge over the St. Lawrence at Quebec has been completed ready for the superstructure. The steel work on the north approach is being riveted, and most of the work on the other spans is expected to be completed this year. The contract for the substructure involved the building of 80,000 cubic yards of masonry and the expenditure of \$1,000,000. Two main piers, two anchor piers and two abutments had to be erected. A description of these, showing the methods of erection, was given in our issue of July, 1902, pg. 221. The difficulty in regard to finding a suitable foundation for the south pier was overcome when a depth of 60 ft. below the bed of the river had been reached. Before it was decided not to sink further the work was inspected by C. Schieber, Deputy Minister of Railways, Mr. Cooper, a consulting engineer from New York, and Dr. Ami, of the Geological Survey, Ottawa, and it was agreed that the bottom on which the caisson rests is a magnificent one for such a bridge. The work was carried out by M. P. Davis, contractor, under the supervision of E. A. Hoare, Chief Engineer. (Nov., 1902, pg. 385.)

Quebec Central Ry.—Nothing has been decided in reference to the date for the commencement of construction on the projected extension of 21 miles from Scott station to the Quebec bridge. (June, 1902, pg. 196.)

Quebec Ry., Light and Power Co.—The necessary majority has been obtained in favor of the Champlain st. extension, and the matter is under consideration. (Nov., 1902, pg. 385.)

Red Deer Lake Ry. Co.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a line from between Swan River and Erwood stations, on the Canadian Northern Ry., to Red Deer Lake, Sask.

Red Deer Valley Ry. and Coal Co.—Application will be made next session of the Dominion Parliament for an act extending the time for the construction of the line authorized, and giving power to extend its line to the Saskatchewan river after it has constructed its railway from Calgary to range 23, w. of 4th principal meridian. (June, 1902, pg. 196.)

Regina and Hudson's Bay Ry.—Application will be made next session of the Dominion Parliament for an act to incorporate a company to construct a railway from Regina northerly to Craven, thence north-easterly through the Longlaketon and Strasburg settlements, Assa., to Carrot river, thence to Fort Churchill; and a branch from Craven to Big Quill Lake; with power to construct other branch lines; running powers over the Qu'Appelle, Long Lake and Saskatchewan Ry. between Regina and Craven; and authority to amalgamate with the Canadian Northern Ry. Co.

Reid-Newfoundland Co.—The arbitrators in the case between the R. N. Co. and the Newfoundland Government found that certain works had to be completed by Sept. 1, 1903, and directed that \$100,000 be held as security for the performance and completion

of these works. Among the works certified as having to be done are: attention to crossings generally, and particularly of New Harbor, road for Murphy's tramway and for Fisher's tramway; the erection of a number of bridges; work at Little River and Exploits; roads destroyed by the construction of the railway to be replaced; the laying of heavier rails than 35 lbs. to the yard between St. John's and Western Jct., and from Tilton, to Harbor Grace.

A branch line has been completed to the west end, where a station has been built. The offices of the Co. have been moved to the new station, a ticket office only being maintained in the city. Some additional freight sheds have been constructed at the docks, and some rearrangement of other buildings made to facilitate the handling of traffic. (Nov., 1902, pg. 385.)

Restigouche and Western Ry.—Some progress is reported in the way of clearing up the grade for some distance beyond the 10 miles on which track was laid. T. Malcolm, the contractor, states that work on the first 20 miles is well under way, and that if the coming season is favorable, the line will be graded to St. Leonard, on the St. John river. The work ahead is fairly heavy. Men will be employed in getting out lumber for the bridges and ties during the winter. (Nov., 1902, pg. 385.)

Riviere du Loup to Metapediac.—Application will be made next session of the Quebec Legislature for an act incorporating a company to construct a railway from Riviere du Loup to Metapediac, Que. H. R. Fiset, Rimouski, Que., is acting for the promoters.

The Riviere Ouelle Pulp and Lumber Co. has been incorporated under the Quebec Companies' Act with a capital of \$100,000, to construct electric and steam tramways in connection with the development of its timber limits and water powers. Hon. J. Sharples, W. Power, R. H. Smith, G. Power, and P. B. Murphy, of Quebec, are the provisional di-

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rectors, and the offices of the Co. are at Pacome, Que.

Rocky Mountain Ry. and Coal Co.—Application will be made next session of the Dominion Parliament for an act reviving the act incorporating this Company which was incorporated in 1891 with P. McCarthy, the late J. R. Costigan, of Calgary, Alta., W. R. Baker, of Winnipeg, and I. K. Kerr, of Eau Claire, Wis., as provisional directors, to construct a railway from near Anthracite, on the C.P.R. transcontinental line, to the coal mines at Red Deer Forks, via Cascade river valley and the south fork of the Red Deer river, about 50 miles. In 1894 the act was amended by the addition of Hon. J. A. Lougheed as one of the incorporators, and the line to be constructed was altered to one from Calgary northwesterly to the Red Deer river, thence westerly to the coal-fields, or alternatively from the Calgary and Edmonton Ry. at Olds, westerly to the coal-fields. In 1894 the Dominion Parliament voted 6,400 acres a mile to the Co. for the construction of about 60 miles of line from Olds to the coal-fields. (Nov., 1902, pg. 380.)

St. George Electric Co.—Application will be made next session of the Quebec Legislature for an act of incorporation with power, among other things, to construct an electric railway from Lake Megantic to Levis, as far as possible along the Chaudiere river.

The St. John Ry. proposes to make a number of extensions in St. John, N.B., Carleton and other points, and M. Neilson recently laid the Co.'s plans before the St. John city council. These were investigated by a sub-committee and approved of by the council on condition that the lines in the west end of the city be in operation by Nov. 1, or the franchise to be forfeited. Work is to be started on the extensions early in the spring. (Aug., 1902, pg. 267.)

St. John's (Nfld.) Street Ry.—Service on the street railway between St. John's and Petty Harbor has been resumed. The Reid-Newfoundland Co. proposes to install a special auxiliary power transmission service between the two points so as to guard against any break-down of the power service through storm or otherwise. (Feb., 1902, pg. 61.)

St. Lawrence Shore.—A. J. de B. Corrievau, of Montreal, is reported to have been negotiating with Chicago capitalists with a view of financing the construction of an extensive system of electric railways along the south shore of the St. Lawrence. It is reported that Mr. Corrievau has secured a number of charters for electric lines along the south shore.

St. Mary's River Ry.—This narrow-gauge line extends from Stirling, on the Alberta Ry. and Coal Co.'s line, to Spring Coulee, Alta., about 30 miles. The A. Ry. and C. Co.'s line has been made standard gauge, and in order to accommodate traffic to the beet sugar factory at Raymond a third track has been laid on the St. M.R. Ry. from Stirling to Raymond, 8 miles, so as to enable the standard gauge cars to be run through. The local traffic, both passenger and freight, is carried on as hitherto on the narrow gauge tracks.

Application will be made next session of the Dominion Parliament for an act authorizing the extension of the line from Spring Coulee southwesterly to Cardston, Mountain View and any point in range 1, west of the 5th meridian; and from this extension westerly to the C.P.R. between range 2, west of the 5th, and range 24 west of the 4th meridian; and from Stirling easterly to range 4, west of the 4th meridian, between the C.P.R. and the International boundary line; and branches not exceeding 30 miles in any one case. Barwick, Aylesworth, Wright and

Moss, Toronto, are the solicitors. (June, 1902, pg. 197.)

St. Thomas Electric Ry.—This line has been taken over by the city council and the city engineer authorized to operate it and to make temporary repairs to the track pending a thorough overhauling. The line includes a belt line $4\frac{1}{2}$ miles in length with two branches, one to the G.T.R., and Lake Erie and Detroit River Ry. stations, and the other to a park outside the city limits, making in all 6 miles.

Salmon River Ry. Co.—Application will be made next session of the New Brunswick Legislature for an act incorporating a company to construct a railway from Ortonville siding, on the Edmundston branch of the C.P.R., 10.9 miles from Aroostook Jct. to near Salmon river mills, Drummond, N.B. J. E. Stewart, Andover, N.B., is the solicitor.

Sandwich, Windsor and Amherstburg Ry. (Electric)—It is reported that considerable difficulty was experienced in arranging with landowners along the route of the extension from Ojibwa to Amherstburg, Ont., $12\frac{1}{2}$ miles, owing to the big prices asked as compensation for cutting shade trees, etc. These, however, were all satisfactorily arranged and construction pushed. We were advised, Jan. 20, that track had been laid from Ojibwa to within $1\frac{1}{2}$ miles of Amherstburg, and it was expected to have the extension opened for traffic early in the spring. Ojibwa, which is 5 miles from Windsor, has been the terminal point of the line for four years. (Nov., 1902, pg. 385.)

The Sarnia Street Ry. proposes to construct a branch, 3 miles in length, to Weis beach, a summer resort on Lake Huron.

Application will be made next session of the Ontario Legislature for an act ratifying a by-law passed by the township of Sarnia in Dec., 1902, respecting the company.

The Schomberg and Aurora Ry. has been completed from Bond Lake, on the Metropolitan Ry., about 17 miles from Toronto, to Schomberg, 15 miles. It will be operated as a steam road, arrangements being in progress for putting on a train service in the spring. (Nov., 1902, pg. 386.)

Seven Islands to Winnipeg.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a railway from Seven Islands, Saguenay county, Que., westerly to Winnipeg. McPherson, Clark, Campbell and Jarvis, Toronto, are solicitors for the applicants. See also North Shore Power Ry. and Navigation Co., and Seven Islands Bay to Quebec.

Seven Islands Bay to Quebec.—Application will be made next session of the Dominion Parliament for an act incorporating a company to construct a railway from the bay of Seven Islands, through the counties of Saguenay and Chicoutimi to the Saguenay river between Lake St. John and Tadoussac, and thence to Quebec city, with power to construct branch lines. D. J. McDougall, Quebec, is the solicitor.

Sherbrooke Street Ry.—A proposal to extend the lines in East Sherbrooke is under consideration of the directors.

Southern Central Pacific Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Victoria northerly and easterly by way of Kootenay pass to the Old Man river, Alta., thence northeasterly through Saskatchewan, to the Churchill river. Johnston and Falconbridge, Toronto, are the solicitors.

South-Western Traction Co. (Electric)—We were advised, Dec. 14, that more than half of the line from London to Lambeth, Ont., about 5 miles, had been graded and track laid. The line starts at the city boundary on

Cathcart st. and turns into the Caseline road of Westminster township, thence to Lambeth. The line is constructed in accordance with the regular practice of steam railways, and is laid with 60 lb. T rails, made by the Algoma Steel Co., laid on cedar ties, and 3/0 trolley wire is used for the overhead work. The work is being done by the Co. under the charge of its engineer, H. A. McLean, B.Sc. The Co. has power to extend the Lambeth line to Glencoe, and from London to Hamilton via Ingersoll, Woodstock, Paris and Brantford. Arrangements are nearly completed for an entrance into London, negotiations being in progress with the London Street Ry. and the London city council. (Nov., 1902, pg. 386.)

Spokane and Kootenai Ry. Co.—A company with this title has been incorporated in the State of Washington to construct about 200 miles of railway from Spokane easterly and northerly via Pend d'Orielle river and lake, and the Kootenai river to Kootenai county, Idaho, on the International boundary. From this point it is stated that a connection with the C.P.R. Crow's Nest line will be established. The incorporators are G. Turner, D. C. Corbin, of Spokane; J. Furth, J. H. McGraw, of Seattle, and C. S. Bihler, of Tacoma. G. Turner in an interview said that a reconnaissance survey had already been made and just as quick as the weather would permit surveying parties will be put in the field. He was asked if the projected line was being backed by the C.P.R., and if its construction meant terminal rates for Spokane, and he replied, "The incorporators are amply able to build the road themselves, and I see no reason for the assumption that somebody else is behind them." Sir Thomas Shaughnessy, President, C.P.R., on being asked as to the suggestion that his company was behind the project, is reported to have said: "Senator Turner is interested in some mining territory in the Kootenay, and that might be the ground for the rumor." D. C. Corbin, one of the promoters of the new line, constructed the Spokane Falls and Northern Ry., with its Canadian connections, the Red Mountain Ry., and the Nelson and Fort Shepherd Ry., now owned by the Great Northern Ry., U.S.

Suburban Rapid Transit Co.—Grading has been completed from Winnipeg to Sturgeon creek, about $3\frac{1}{2}$ miles, and track will be laid in the spring, and it is expected to be open for traffic in May. The power house will be built at Sturgeon creek, and a further extension of track graded in the spring. The Co. has offered the city of Winnipeg about 23 acres of land lying between Sturgeon creek and the Assiniboine river, to be used as a public park. (Nov., 1902, pg. 386.)

Sydney and Louisburg Ry.—The Dominion Coal Co., owning this railway, has had additional sidings put in at the Glace Bay, N.S. shops, and has added 40 ft. to the length of the forge department. (June, 1902, pg. 197.)

Temiscouata Ry.—At the annual meeting, recently held, G. G. Grundy, Engineer and Superintendent, reported that during the year 17 miles of road had been ballasted. Further improvements both to the roadbed and the stations were in contemplation.

Temiskaming and Northern Ontario Ry.—We were informed, Jan. 9, that the location to the 70th mile has been completed, and a party was in the field revising the location from the 60th to the 70th mile. As soon as this is completed the party will start at the 70th mile and work northwards to meet another party working southwards from the 100th mile. There are at present over 1,200 men engaged on the work. Mileage 25 to 27 will be graded by A. R. Macdonnell, the general contractor, and additional sub-contracts have been let as follows: Mileage 27 to 30, J. Bark; mileage 32 to 40, Grant and Doheny. Some of the sub-contractors claim to have a griev-

ance against the general contractor, one of the grounds alleged being that the terms under which they started work are being varied, and another that they are asked to purchase all their supplies from the contractor, paying him 15% on the purchases. An appeal is reported to have been made to the Commissioner of Public Works on the subject. (Jan., pg. 23.)

Tillsonburg, Lake Erie and Pacific Ry.—The extension from Tillsonburg to Ingersoll, Ont., 15 miles, has been put in operation for both freight and passenger traffic. The line from Port Burwell to Ingersoll, is 35 miles in length. The Port Burwell harbor is completed. It has a depth of 18 ft., and a turning basin 2,000 ft. from the entrance, 375 ft. wide. The piers are set several feet deep in blue clay, and the work is of a most permanent character. The harbor opens out into deep water, and can be kept open for car ferry purposes throughout the winter. The T.L.E. and P.Ry. crosses the G.T.R. air line, Michigan Central, the Tillsonburg and Brantford branch of the G.T.R., and connects with the C.P.R. at Ingersoll. The projected extension of the Lake Erie and Detroit River

Ry. from St. Thomas to Buffalo will cross the T.L.E. and P. Ry. The T.L.E. and P.Ry. will have special facilities for the coal trade. Port Burwell is 51 miles from Erie, Ohio; 49 miles from Conneaut, Ohio; 57 miles from Ashtabula, Ohio, and 63 miles from Fairport, Ohio. It will furnish commercial coal to the towns upon the route, and to the other towns which may be reached by the Michigan Central, the T.H. and B., and the C.P.R. The road has a charter for an extension from Ingersoll to Collingwood, Ont., about 100 miles. The route selected will be either by Stratford or via Woodstock and Berlin, and bonuses are being asked for. Negotiations are in progress for establishing a car ferry to Port Burwell by putting on a steamer that will carry 30 loaded cars. Either this plan will be adopted or extensive coal docks and pockets will be erected at Port Burwell, and hoisting machinery for taking coal from the holds of coal vessels. (Nov., 1902, pg. 387.)

Toronto and Mimico Ry. (Electric)—Surveys have been made recently for the extension of this line from its present terminus, 5.25 miles from Sunnyside, Toronto, to Oakville,

and it was stated that construction will be gone on with in the spring.

Toronto, Hamilton and Buffalo Ry.—The bridge over the Grand river at Brantford has been raised 4 ft., and by the addition of a steel through girder span of 100 ft., making four spans in all. A new concrete pier and abutments were constructed for the additional span. The cost of the whole work was about \$18,000. An addition of 250 ft. to the freight shed at Hamilton has been completed. An addition of a similar size was built about two years ago. (Nov., 1902, pg. 387.)

Toronto, Lindsay and Pembroke Ry.—Plans have been filed with the Ontario Department of Public Works for a section of 20 miles of this proposed line, in continuation of the 8½ miles for which plans were filed in 1901. These plans show a line from Bird creek, to which point the Irondale, Bancroft and Ottawa Ry. has been constructed from the G.T.R. Lindsay-Haliburton branch to Palmer's Rapids. The Ontario Government voted a subsidy to the I.B. and O.Ry. for this piece of line at its last session, reserving running powers over it to the T. L. and P. Ry., and as an alternative permitted the T.L. and P.Ry. to

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construct the line; in which case the I.B. and O.Ry. was to have running powers over it. (April, 1902, pg. 147.)

Toronto Radial Railways.—W. T. Jennings, C.E., who has been engaged by the Toronto city council to look into the question of the entrance of the Metropolitan Ry. and other suburban lines now existing, or that may be constructed in the future, into the city, has presented a report to the Board of Control, which has not been made public. It is reported that the Metropolitan Ry., the Toronto and Mimico Ry., the Toronto Suburban Street Ry., and the Toronto and Scarborough Ry. have all prepared plans to run into St. Lawrence market, as soon as an arrangement is effected with the city permitting them to do so. The position taken by the city council is that the routes to be adopted shall be fixed by it and not by the companies interested. (Nov., 1902, pg. 387.)

Toronto Ry.—The Railway Committee of the Privy Council has given this Co. permission to cross the C.P.R. tracks on Avenue road. The line on Dupont st., from Avenue road to Walmer road, has been placed in operation. A preliminary agreement has been made with the Toronto city council for the construction of a line on Lake st., so as to make a new loop-line and do away with the inconvenience to passengers to and from the steamer landings during the summer by reason of the frequent standing of freight trains at the foot of Yonge st. (Nov., 1902, pg. 387.)

Toronto Suburban Ry.—An extension from Lambton to Cooksville, Ont., 9 miles, is projected, and work was started on the first section of 4 miles, which would carry the line to Summerhill. The grading on half a mile was completed and a little track was laid. Work will probably be resumed in the spring, although it is likely that the route will be somewhat changed. The Co. is constructing the line itself, under the supervision of Gibson and Son, Willowdale, Ont. (April, 1902, pg. 147.)

Toronto Union Station.—The accommodation in every department has become so cramped that officials of the G.T.R. and C.P.R. have been considering plans for relieving the congestion. Both companies want more room for office purposes, and better facilities for handling passengers are needed.

Trans-Canada Ry.—No work was done during 1902, in continuation of the grading started at Roberval, Que., in June, 1901. Work was then formally started in order to meet the requirements of the charter, pending the passing of an act granting an extension of time. A contract has been let to B. A. Scott for the grading of 30 miles to be completed by Nov. 1. The Co. has been engaged in perfecting its organization and working out its financial plans. A bonus of \$100,000 has been voted by the Lake St. John district, and a considerable amount of stock has been subscribed. Colonel Church, of London, Eng., who is one of the promoters of the line, is engaged in interesting British capital and in the formation of a construction company to take the contract for grading, etc., of the first section of about 400 miles to the western boundary of Quebec, near James bay. (Nov., 1902, pg. 387.)

Valleyfield Electric Ry. Co.—Application will be made next session of the Quebec Legislature for an act incorporating a company with this title to construct an electric railway within the counties of Beauharnois, Huntingdon and Chateauguay, centering in Valleyfield, and extending to the C.P.R. at Caughnawaga. S. A. Brodeur, D. Dion, J. M. Deschenes, M. Lefebvre, G. H. Thibault and C. A. Lavimodiere, of Valleyfield, are the applicants.

Vancouver and Coast-Kootenay Ry.—N. McLean, of McLean Bros., Vancouver, who

have a contract with the B.C. Government to construct a railway through the Hope mountain district to Vancouver, and a ferry connection with Victoria, reports that the financing of the line has been arranged provided an additional subsidy can be secured. If an additional subsidy cannot be obtained it is proposed to complete the line between Vancouver and the mouth of the Fraser river and to put on a ferry service to Victoria under the existing contract. (Nov., 1902, pg. 387.)

Vancouver, Victoria and Eastern Ry. and Navigation Co.—During the recent visit of the Minister of Railways to B.C., some conversation took place between him and J. J. Hill, President of the Great Northern Ry. (U.S.) in reference to its interests in B.C., and Mr. Blair subsequently told the Victoria Board of Trade that Mr. Hill would construct the V.V. and E.Ry. through to the coast, and he understood that no subsidies would be asked. At a meeting of the Railway Committee of the Privy Council, held on Mr. Blair's return to Ottawa, the V.V. and E.Ry. was given permission to run branch lines to Columbia and Grand Forks, B.C., to construct a spur line to the Granby smelter, and to cross the tracks of the Kettle Valley Lines. Construction into Grand Forks and across the K.V.L. has since been completed, and a station is to be constructed in Grand Forks. The spur line to the Granby smelter is expected to be completed by April 1; it is being constructed round Observation mountain, about 20 ft. above the C.P.R. tracks. The work is all in the rock, and is proceeding slowly, a good deal of extra work being occasioned by the necessity of keeping the debris from falling on the C.P.R. tracks.

A branch is to be constructed to Phoenix in the spring, and it is said the line will be extended from Curlew, via Greenwood in the direction of Midway this year. Sims and Shields are reported to have the contract for the construction of the line from Curlew to the coast, near Vancouver, the work to be completed in three years. J. Sims, one of the contractors, is a director of the G.N.Ry., U.S. (Nov., 1902, pg. 387.)

Vancouver, Westminster, Northern and Yukon Ry.—At a special meeting in Vancouver recently a resolution was passed transferring all the property, rights, franchises, etc., to the Vancouver, Westminster and Yukon Ry. Co. (Nov., 1902, pg. 387.)

Victoria (Point Ellice) Bridge.—The Victoria, B.C., city council has let a contract for the construction of a bridge over the Victoria Arm at Point Ellice. The bridge will cost \$65,000 and will carry a double track for the electric railway, in addition to sidewalks, etc.

Victoria Lumber Co.'s Ry.—Construction has been started on a logging railway from Ladysmith, B.C., northwesterly, for the Victoria Lumber Co., Chemanus, B.C. E. J. Palmer is the Managing Director.

Victoria Terminal Ry. and Ferry Co.—The new owners are negotiating with the Victoria city council with a view of obtaining an extension of time for the completion of the works agreed to be constructed in connection with the extension of the Victoria and Sidney Ry., the erection of a union station, etc. The company asks for an extension of time to Dec. 30, and promises in return to give a better ferry service to the mainland than was previously arranged. (Nov., 1902, pg. 387.)

Western Alberta Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the commencement and completion of the line authorized from the International boundary west of range 20 west of the 4th principal meridian in Alberta, northwesterly to the middle fork of the Oldman river, thence northerly to the Sarcee Indian reserve, thence via Can-

more and Anthracite, and the valley of the Red Deer river to the headquarters of the North Saskatchewan, and along this river to the eastern base of the Rocky mountains. It is also sought to have range 14 substituted for range 20 as the starting point of the line. (Jan., 1900, pg. 17.)

Westminster, Vancouver and Fraser River Valley Ry.—Application will be made next session of the B.C. Legislature for an act incorporating a company with this title to construct a railway from Vancouver to New Westminster, thence to near Chilliwack, and thence to the mouth of the Fraser river. Edmonds and Edmonds, New Westminster, B.C., are the solicitors.

Whitney to Big Opeongo Lake.—The line from Whitney, on the Canada Atlantic Ry., to Big Opeongo Lake, in Algonquin Park, Ont., about 15 miles in length, constructed for the St. Anthony Lumber Co., has been placed in operation. The line cost about \$200,000, this high cost being accounted for by the large amount of rock-cutting and trestle work to be done. There are four high trestles, each being over 400 ft. in length. (Nov., 1902, pg. 387.)

Winnipeg and St. Andrew's Rapids Ry.—E. F. Hutchins, of Winnipeg, is reported to have said that arrangements are being made for the construction of a railway from Winnipeg to Lorne Hill, Man. It is proposed to operate the line by steam, but to adopt electricity when the power at Lac du Bonnet or some other convenient point is developed. The W. and St. A. Ry. Co. was incorporated in 1898 by the Manitoba Legislature, E. F. Hutchins being one of the promoters, to construct a railway from Winnipeg to Lorne Hill, and thence to the Red river below St. Andrew's rapids.

The Winnipeg Electric Street Ry. proposes to construct a line about a mile in length from the city boundary into the municipality of Kildonan, and negotiations for the franchise are in progress. A new boiler has been installed at the power-house. At the recent city elections in Winnipeg the question of operating cars on Sundays was voted on, and the proposal was defeated by 400 votes. (Nov., 1902, pg. 387.)

Winnipeg Quarry.—The City Engineer has submitted an estimate to the city council for the construction of 5 miles of railway to connect Winnipeg with the city quarries. The cost of construction and equipment is estimated at \$138,425, and it is said a saving will be effected by the city owning and operating its own line instead of paying freight to the C.P.R. The proposition is to extend the Winnipeg and Stony Mountain Ry. into the city from near its present junction with the C.P.R. main line paralleling that line to the city limits, thence southerly to between Notre Dame and Logan avenues. No action had been taken in the matter to Jan. 10.

Wolfe, Megantic and Lotbiniere Ry.—Surveys are reported to have been completed from the International boundary near Megantic, Que., to Oquossoc, Me., about 32 miles, to connect the projected W.M. and L. Ry. with the Rumford Falls and Rangeley Lakes Ry. (Nov., 1902, pg. 387.)

York and Carleton Ry.—The New Brunswick Legislature will be asked next session to vote a bonus for an extension of the line from Stanley, 5 miles, along the Nashwaak river valley to the edge of the settlement. Application will also be made to the Dominion Parliament for a subsidy.

It is said Northern Securities interests are endeavoring to secure control of the Bellingham Bay and British Columbia Rd., which occupies a strong strategic position in north-western Washington.

Canadian Northern Ry. Construction.

Toronto Offices.—The Co. has acquired the premises in Toronto known as Toronto chambers, having a frontage of 163 ft. on King st. east, and 82 ft. on Toronto st. Third Vice-President Hanna has selected the top floor for his office, and will have a staff of about a

dozen clerks. The corner store, 52 King st. east, is occupied by W. Phillips, General Eastern Agent, who has hitherto had his offices in the Union station. The first and second floors will probably be occupied by other Canadian Northern officials and by Mackenzie, Mann & Co., who will move there from the Toronto Ry. Chambers.

Port Arthur, easterly.—Survey parties are in the field easterly from Port Arthur running lines, but no information is available as to the route which will be followed. W. Mackenzie recently drew a line from Kashabowie, 82 miles west of Port Arthur, Ont., direct to Quebec, and asked the reporter who was interviewing him about the eastern extension of

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the line, how that would do. A press report credited the survey parties with the intention of running a line to White River on the C.P.R., and there making a junction with the Algoma Central and Hudson's Bay Ry., which proposes to construct a line to that point.

Port Arthur Elevator.—The 2,200,000 bush. addition to the elevator at Port Arthur, Ont., is completed, and began taking in wheat Jan. 19, bringing up the Co.'s accommodation at its lake terminal to 3,700,000 bush. This addition is built of tile on a pile foundation covered with concrete, and cost \$750,000. (Aug., 1902, pg. 269.)

Port Arthur Station.—The erection of a permanent station at Port Arthur will be undertaken at an early date, but whether it will be joint with the C.P.R., or independent, is still under consideration, although press reports state that the C.P.R. has declined to have a joint station.

Port Arthur and Fort William Crossings.—In July, 1902, the Railway Committee of the Privy Council made an order that the Co. put in interlocking and derailling devices at the points where its tracks cross the C.P.R. tracks in Port Arthur and Fort William, Ont. At a meeting of the Committee held on Jan. 6, the Co. applied to have the order amended. The rules of the Committee are that such appliances, where considered necessary, must be put in at the cost of the junior road. This rule, the C.N.R. Co. considers is not so good as the old rule, which simply required trains to come to a dead stop before crossing, and works harshly on the junior road, which frequently has a smaller number of trains operating over the crossing than the senior road. The Committee decided that the order must stand, and gave the Co. until June to put in the appliances.

War Road to Rosseau.—Surveys were made in 1901 for a branch from War Road, at the Minnesota end of the Rainy river bridge, to Rosseau, Minn., but no decision has been announced regarding construction.

St. Boniface Crossing.—Application was made at the Jan. sitting of the Railway Committee of the Privy Council to relieve the Co. from the necessity of putting in safety devices where its track crosses the C.P.R. tracks. It was pointed out that the C.P.R. had only two trains a week over the crossing, which was at a point where it was possible to see several miles in either direction. The matter was held over to see if an arrangement could be arrived at.

Emerson Branch.—Fourteen miles have been graded and track laid from Emerson easterly. It is proposed to extend the line easterly, finally to a junction with the line from Port Arthur to Winnipeg at Vassar or Sprague. A. C. Mackenzie, Winnipeg, was the contractor. (Nov., 1902, pg. 389.)

Emerson-St. Vincent Extension.—About 2 miles of line from Emerson, Man., to the International boundary has been constructed, and connection made with an extension of the track of the Great Northern Ry., U.S., from St. Vincent, N.D. There used to be a connection between the G.N. Ry. and the C.P.R. lines running through St. Vincent and Emerson, but when the C.P.R. built a line to Gretna, connection was made with the G.N.R. at Neche, and the connecting line at Emerson was abandoned and taken up. (Nov., 1902, pg. 389.)

Carman Branch.—Grading on the extension of this branch, which was completed to 11 miles west of Carman, Man., in 1901, has been continued 7.8 miles further west towards Somerset, and track laid. No decision has been announced regarding any further extension of the branch. (Nov., 1902, pg. 389.)

Branch to Oak Point.—The old Hudson's Bay line from Winnipeg to St. Laurent is practically being rebuilt, about 20 miles of

the grade at the north-west end having been abandoned, and a new route located. About 35 miles of the grade has been completed, but no track has been laid owing to the difficulty in obtaining steel. The line is to be extended to Oak Point, on Lake Manitoba, 53 miles from Winnipeg, where wharves and other shipping facilities are to be erected. It is said the additional 18 miles of grading will be completed early this year, and track laid over the branch. (Nov., 1902, pg. 389.)

Oaklands to White Mud River.—Negotiations are in progress for the construction of a branch from Oaklands, on the Portage la Prairie-Delta line, to White Mud river, about 12 miles, and it is expected that arrangements will be completed so that construction will be gone on with this year.

Neepawa Branch.—The total length of the branch from Neepawa Jct. (formerly Katrime) to Neepawa is 33.7 miles. The branch is being extended from Neepawa to McCreary, on the line to Erwood, 37.8 miles. Grading has been completed to within 1½ miles of McCreary. We were informed Jan. 20, that track had been laid on about 20 miles of the extension, and work was still being continued. (Nov., 1902, pg. 389.)

Rosburn Branch.—Grading has been completed for about 25 miles from Rosburn Jct., 5 miles north of Neepawa, on the line to McCreary, westerly towards Clanwilliam. We were informed Jan. 20, that tracklaying had been practically finished. (Nov., 1902, pg. 389.)

Grand View Extension.—Forty-five miles of grading has been completed from Grand View westerly. Bridging has been completed for the first 13 miles, and tracklaying will be started in the spring. G. H. Strevel, Winnipeg, is the contractor. Surveys have been completed from Grand View to within 80 miles of Battleford, Sask. Some distance east of Battleford there will be a junction, at which a line from Prince Albert, to which point the line heading from Erwood, Sask., will join. (Nov., 1902, pg. 389.)

Virden.—Surveys will shortly be made for a line north and south from Virden, with a view of deciding on the practicability of a route suggested by the promoters of the Virden and Northern Ry. The line projected is from the International boundary via Pipestone to Virden, and thence to the northern boundary of the Province or other convenient point. A deputation asked the C.N. Ry. to take over the charter and construct the line, with the result that President Mackenzie directed a preliminary survey to be made. (April, 1902, pg. 147.)

Western Branches.—Application will be made next session of the Dominion Parliament for authority to construct the following additional branch lines: from Sperling, Man., on the Carman branch, generally southerly and easterly to Morris, then to a point between St. Anne and the southern boundary of Manitoba; from Hartney, Man., northerly and westerly to Regina, Assa.; from Swan river, Man., along the Swan river valley, westerly to the Co.'s authorized line at the crossing of the Saskatchewan river; from Battleford, Sask., on the Co.'s authorized line, westerly to the Brazeau river, Alta.; from Edmonton, Alta., northerly, northeasterly or northwesterly for 100 miles; from the C.N. Ry. or the Edmonton, Yukon and Pacific Ry. west of Edmonton westerly and southerly to Rocky Mountain House, Alta. It is expected that construction will be gone on with on some, if not all, of the branches projected in Manitoba this year.

Erwood Westerly.—Grading has been completed beyond the 20 miles graded in 1901, for about 30 miles, and piles have been driven for the bridges on a further distance of 10 miles. We were advised Jan. 20 that track-

laying had been going on for some time, and that about 20 miles had been laid to that date. Neil Keith and D. Keith are the contractors. The route followed from Erwood is through the southern portion of tp. 45, to Melfort, thence northwesterly to the crossing of the South Saskatchewan river in tp. 46, range 25, then northwesterly to Prince Albert. It is the intention of the Co., Vice-President Mann recently stated, to extend the line from Prince Albert westerly to about midway to Battleford, where a junction will be effected with the extension of the line now being constructed from Grand View, Man. (Nov., 1902, pg. 389.)

Edmonton.—Survey parties are in the field working easterly to Battleford and westerly to the Rocky Mountains. The Co. has a charter giving power to build to the Pacific coast by way of the Pine river pass, and has control of the Edmonton, Yukon and Pacific Ry. Co.'s charter, which gives power to build via the Yellowhead pass. On the westerly surveys the Smoky river valley has been looked over, but the reported pass over the mountains by it has been found to be not available for railway construction. Easterly the surveyors are locating the line to Battleford, where they will meet the survey party working from Grand View, Man. President Mackenzie, in a recent interview, said Edmonton will probably be reached by the line in 1904. Referring to the extension to the Pacific coast, Premier Prior, of B.C., recently stated that his policy was first to open up the country by railways, and that the C.N. Ry. was the one scheme which he considered to be for the best interest of B.C. as a whole.

Tie Contracts.—Contracts have been placed for taking out about 1,000,000 ties during the winter in the Rainy River district and west of Erwood, the contractors being G. H. Strevel, A. C. Mackenzie, N. Keith and L. Christie. Nothing definite has been arranged in respect to taking out ties in the Battleford district.

The Safety Car Heating and Lighting Co.'s business in 1902 was exceedingly large. During the year 2,051 cars were equipped with the Pintsch light in Canada, the U.S., and Mexico; 75 Gas Buoys were purchased by the light house department of Canada and the U.S., and 1,811 cars were equipped with its standard steam heating systems. The Pintsch lighting system has been adopted by over 200 railways in Canada, the U.S. and Mexico, where it is applied to 20,017 cars. The Pintsch buoy system is applied to 240 buoys and beacons in the same countries. The steam heating systems of this Co. are adopted by 130 railways in the U.S., and are applied to 11,050 cars. Up to Oct. 1, 1902, the Pintsch system has been applied to 116,000 cars, 5,000 locomotives and 1,500 buoys and beacons in the world. The simplicity of operation and economy in maintenance of the Pintsch system has been so satisfactory that it has practically been adopted as the standard lighting system by the majority of the railway lines and the lighthouse boards of the world.

A fine of \$50 and costs has been imposed on the C.P.R. station agent at Sinteluta, Man., for a violation of the car distribution provisions of the Manitoba Grain Act. The prosecution was initiated by the Warehouse Commissioner, on the complaint of a member of the Territorial Grain Growers' Association, and the C.P.R. defended the action of its agent. An appeal, taking the case to the Supreme Court, has been entered.

The Sandwich, Windsor and Amherstburg Ry. (electric) made a very good showing in 1902, running 437,211 miles and carrying 1,612,555 people without injuring a single passenger.

C.P.R. Betterments, Construction, Etc.

St. John, N.B., Terminals. The yard accommodation at St. John, N.B., notwithstanding the recent enlargement and rearrangement which provides for 1,400 cars against 800 in 1901-02, is still insufficient to meet the growing demands of the winter business at the port. The work of extending the yards will be resumed in the spring, but the 2nd Vice-President, on the occasion of a recent visit to St. John, stated that no further improvements would be made beyond those already started until the St. John people did something further in the way of increasing their harbor facilities. (Nov., 1902, pg. 377.)

Fairville Yard.—We are advised that there is nothing in the press reports that land has been acquired at Fairville, N.B., with a view to erecting a new station, freight shed and roundhouse.

Vanceboro Station.—A new station building, providing accommodation for railway purposes as well as for the Dominion and American Express Cos., the Western Union Telegraph Co., and the immigration and custom house services, has been completed at Vanceboro, Me.

Brigham Jct.-Farnham Double-tracking.—The double-tracking between Brigham Jct. and Farnham, Que., 6 miles, has been completed. (Nov., 1902, pg. 377.)

St. Constant Bridge.—The trestle bridge at St. Constant, 14 miles southeast of Montreal, was damaged by fire Jan. 26. The bridge is 145 ft. long and 15 ft. in height, and of this about 75 ft. were burned. Temporary repairs have been made pending the erection of a steel trestle.

St. Henri Yards.—A new freight shed is to be built in St. Henri, Montreal, the council having given permission to close Lacroix st. at its present termination. The sheds will be erected on the proposed extension of Lacroix st., and the yard will have track connection to the bank of the Lachine canal, the tracks running alongside those of the G.T.R. (June, 1902, pg. 201.)

Place Viger Yards, Montreal.—Several large areas of land have been acquired for the Co. in the vicinity of Place Viger station, and the old Dalhousie square station. The object is to provide additional yard space and to extend the passenger accommodation at Place Viger station. (April, 1902, pg. 139.)

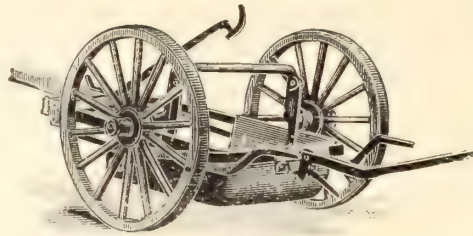
Montreal Shops.—A further contract has been let to Lessard and Harris, Montreal, for the construction of the blacksmith shop at the new shops' site at Hochelaga. The building will be 630 by 130 ft., and will have an annex for the forges. This is the eighth contract let for the buildings at the new shops. (Nov., 1902, pg. 377.)

Chateau Frontenac, Quebec.—Press reports state that it is proposed to acquire property adjoining the Chateau with the object of enlarging it either by adding to the present building or erecting an additional one.

Northern Colonization Ry.—About one-third of the grading has been completed and track laid from Labelle, Que., to the crossing of the Rouge river, about 3 miles. The bridge over the river is under construction and is expected to be completed by spring. (Nov., 1902, pg. 377.)

The Toronto Short Line, from North Toronto to Toronto Jct., is being double-tracked to facilitate the handling of through freight trains. The Railway Committee of the Privy Council recently granted permission to lay the additional track on the street crossings north of Toronto between Avenue road and Symington ave.

Toronto-Toronto Junction Double-track.—The Railway Committee of the Privy Council has given permission for the laying of an



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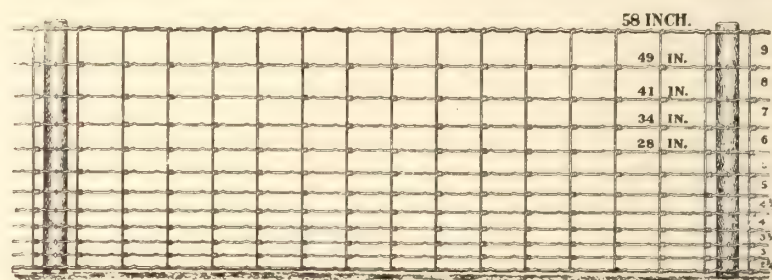
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additional track from the Parkdale yard to the Toronto Jct. yard.

Toronto Jet. Shops.—It is proposed to build an extension 83 by 312 ft. to the shops at Toronto Jct., thus doubling the size.

Kleinburg-Sudbury Line.—The plans, profiles and books of reference in respect of the location of the projected line from Kleinburg to Sudbury, Ont., were filed at Ottawa Nov. 18, 1902. Plans are also reported to have been filed at Barrie registry office. (Jan., pg. 9.)

North Bay Freight Shed.—New freight and flour sheds are being built at North Bay. The foundations are of concrete and stone and the superstructure of frame. The cost will be about \$25,000. J. O'Boyle, Sault Ste. Marie, Ont., is the contractor. (Nov., 1902, pg. 379.)

Port Arthur Elevator.—We were recently advised that no decision has been reached in reference to the construction of a cleaning elevator at either Port Arthur or Fort William, Ont. (June, 1902, pg. 201.)

Winnipeg Subway and Station.—The 2nd Vice-President was in Winnipeg early in Jan. in connection with the proposed new terminal buildings. The plans for the buildings, the subway and the rearrangement of the yards are being prepared, and that for the subway will be submitted to the city council shortly. The whole matter of negotiations is in the hands of W. Whyte, Assistant to the President. (Aug., 1902, pg. 271.)

Winnipeg Hotel.—The 2nd Vice-President stated at Winnipeg recently that the site for the proposed hotel would be in the block on the Co.'s north-end property in the city.

Winnipeg Offices, Etc.—The freight offices have been moved to the old Tecumseh house from the old Royal hotel, where they have been located since the fire, pending the erection of permanent premises. (June, 1902, pg. 202.)

The Co. has secured the old Svea hotel premises at Winnipeg, and is having alterations made to fit it for a stationery supply department.

Winnipeg Spur Tracks.—The Railway Committee of the Privy Council has granted permission for the construction of two spur tracks, one parallel and west of Princess st., and the other crossing Nena to the property of Metcalfe and Stewart, on agreements being made with the parties interested.

Snowflake Branch.—Tracklaying on the 10 miles from Snowflake to Mowbray, Man., has been completed and the branch handed over to the operating department. (Nov., 1902, pg. 379.)

Waskada Branch.—Tracklaying on the 20-mile extension, from Waskada to Lyleton, has been completed and the line handed over to the operating department. (Nov., 1902, pg. 379.)

Portage la Prairie, Man.—Considerable improvements have been made in the yards, a double track has been laid in front of the station and a well sunk near the tank.

Manitoba and Northwestern Ry.—Grading on 50 miles of the extension from Yorkton was completed last season, and track was laid for about 30 miles. (Jan., pg. 25.)

McGregor Branch.—Track has been laid on the 10 mile extension from Wellwood to Brookdale, Man., and the extension is being operated. (Nov., 1902, pg. 379.)

The Great North West Central Ry. Co. will apply next session of the Dominion Parliament for an act extending the time within which it may commence and complete its lines.

Branch from Forrest.—The 22 mile extension from Wheatlands to Lenore has been completed, and a train service is being operated over it. (Nov., 1902, pg. 379.)

Brandon, Man.—It is expected that a commencement will be made on the alteration to the yards and the erection of an overhead bridge, freight sheds and roundhouse early in the spring. The estimated cost of the improvements is \$100,000. (Aug., 1902, pg. 271.)

Pheasant Hills Branch.—Grading has been completed from Kirkella, northerly to Neudorf, about 103 miles, and track laid to Scissors creek, 45 miles. Ballasting has been completed on the first 20 miles. (Nov., 1902, pg. 379.)

Qu'Appelle, Long Lake and Saskatchewan Ry.—The C.P.R. has made considerable improvements in the roadbed, and more extensive alterations and improvements are in contemplation.

Moose Jaw Westerly.—During the year extensive works are to be undertaken on the main line west of Moose Jaw, having for their object the straightening of the line and the reduction of gradients. The alterations to be made are of such a character that when completed the hauling capacity of the locomotives will be increased 50%.

Frank Yard.—Tenders are under consideration for grading the yard at Frank, Alta. The plans call for a four-track roadbed one mile long, and about 6 miles of side tracks. The yard is being put in for the accommodation of the increasing coal and coke business at this point. A new station building, water tank and coal chutes are also to be erected. In connection with the yard a deviation of about 2 miles is to be made in order to improve the gradient.

Morrissey Station.—Press reports state that a station to cost \$3,000 is to be erected at Morrissey, B.C.

The British Columbia Southern Ry. Co. will apply at next session of the Dominion Parliament for an act extending the time for the commencement and completion of its lines, and also giving power to build from near Fort Steele, to near Golden, on the C.P.R.

Improvements at Phoenix.—A Y has been put in at Phoenix, B.C., which will enable the loop constructed at Hartford Jct., two miles away, in 1901, to be utilized. An additional spur 1,800 ft. long has been laid to the Snowshoe mine.

Deviation at Field.—An important improvement is about to be effected at Field, B.C., by the diversion of the line between Field and Hector, about 7 miles, in order to avoid the big hill there, on which the gradient is $4\frac{1}{2}\%$. The idea is to start at Hector and cross the Kicking Horse river, to run along the north fork, and to join the main line again at Field. This will reduce the gradient to $2\frac{1}{2}\%$. It has not been announced just when the improvement will be effected.

Mountain Hotels.—Very considerable alterations and improvements are being made at the Co.'s hotels at different points in the Rocky and Selkirk mountains to provide for the increasing demands of visitors.

At the Mount Stephen House, Field, another wing similar to the one erected in 1901 is being built. It will contain 40 bedrooms, billiard rooms, private dining-rooms, and some additions to the kitchen accommodation. An electric light system is also being installed. Dessette and Fox, Vancouver B.C., are the contractors.

The chalet at Lake Louise, Laggan, is being renovated and a fine entrance hall is being added. A new wing, similar to that at Field, containing 35 bedrooms, with billiard room, is in course of erection. J. A. Kerna-han, Winnipeg, Man., is the contractor.

At the chalet erected in 1901, at Emerald Lake, the kitchens are being re-arranged and a number of other improvements are being

carried out by which 10 additional rooms will be provided. (June, 1902, pg. 203.)

The Glacier House will ultimately be rebuilt, the work in hand at present being the erection of a wing, which will form part of a new hotel, containing 60 bedrooms. An electric light system is also to be installed.

At Field a large building is being built as a laundry, with a capacity of 5,000 pieces a day, to serve the hotels at Field, Glacier, Lake Louise and Emerald Lake.

The work at the different places is to be completed by April 30. The new buildings are all of a substantial and permanent character, with concrete and stone foundations, and are fitted with steam heating and baggage lifts. The bedrooms all have bathrooms attached. The kitchens at each hotel are being re-arranged and newly equipped. New drainage systems are also being provided.

It is also proposed to increase the accommodation at the Banff hotel by 100 rooms.

These various works are being carried out under F. M. Rattenbury, architect, Victoria, B.C.

Fraser River Bridge.—Work has been resumed on the reconstruction of the bridge over the Fraser river at Mission, B.C. Seven spans from the draw had been previously completed, leaving the draw span and one span connecting with the south shore to be replaced. The new draw span will be of steel.

Coal Plant at Vancouver.—Plans have been prepared for the construction of coal bunkers on the water front near Alexander St., Vancouver, but nothing has been announced in regard to their construction.

Vancouver Hotel.—The wing being built at Vancouver is expected to be ready for occupation Mar. 30. It contains over 100 rooms, which will be occupied as soon as completed. The old building will then be taken down and a new central building, which will correspond in architecture to the new wing, erected. In connection with the hotel a large detached building is being built for laundry purposes and servants' quarters. F. M. Rattenbury, Victoria, is the architect.

Duluth, South Shore and Atlantic Ry.—An extension of 3 miles from Calumet to Laurium, Mich., has been completed.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—It is intended to extend the line to Aberdeen, S.D., but no decision has been reached as to when construction will be commenced. New 80-lb. steel rails have been laid from Sault Ste. Marie, Mich., to Sturgeon River, 131 miles, replacing 60-lb. rails.

Not "Off-Again, On-Again" This Time.

The following telegram, from which name, etc., are omitted, was recently received by one of the superintendents at Toronto union station from a station agent:—

"When train no. — was about to leave here, brakeman found man lying on main line with head cut off. Dr. — was called, and after examination pronounced the man dead."

Contractors' Addresses Wanted.—We want to ascertain the addresses of Luke Maddigan and J. A. McDonnell, railway contractors. The last address we have for them is Savanne, Ont., when they were at work on the Canadian Northern Ry. Anyone knowing the address of either or both of them will confer a favor by addressing THE RAILWAY AND SHIPPING WORLD, Toronto.

The American Locomotive Co.'s gross earnings for the six months ended Dec. 31, 1902, partly estimated, were \$15,265,352, an increase of \$3,634,387. The Co. has orders for 2,800 locomotives.

February Birthdays.

Many happy returns of the day to

B. H. Bennett, General Agent Chicago and North-Western Ry. at Toronto, born at Cobourg, Ont., Feb. 6, 1858.

W. H. Cole, Receiver Brockville, Westport and Sault Ste. Marie Ry. at Brockville, Ont., born there Feb. 4, 1834.

H. J. Colvin, District Passenger Agent

C.P.R. at Boston, Mass., born at Macedon, N.Y., Feb. 26, 1856.

Robert Crawford, City Freight Agent Canadian Northern Ry. at Winnipeg, Man., born at Kingston, Ont., Feb. 21, 1870.

F. P. Dwyer, Eastern Passenger Agent G.T.R. at New York, born at Chicago, Ill., Feb. 20, 1853.

E. A. Evans, General Manager and Chief Engineer Quebec Ry., Light and Power Co.

at Quebec, born at Kensington, London, Eng., Feb. 26, 1855.

A. R. Evans, General Freight and Passenger Agent Midland Ry. Co. of Nova Scotia at Windsor, N.S., born at Montreal, Feb. 1870.

E. H. Fitzhugh, Vice-President and General Manager Central Vermont Ry. at St. Albans, Vt., born in Montgomery County, Mo., Feb. 1, 1853.

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C. W. Gardner, Auditor Minneapolis, St. Paul and Sault Ste. Marie Ry. at Minneapolis, Minn., born at Rushville, N.Y., Feb. 17, 1861.

W. C. Hall, ex-Superintendent Eastern Division C.P.R. at Quebec, born in Ireland, Feb. 18, 1831.

J. A. Johnson, Mechanical Foreman I.C.R. at Campbellton, N.B., born at St. John, N.B., Feb., 1848.

R. S. Logan, Assistant to 2nd Vice-President and General Manager G.T.R., Montreal, born at St. Louis, Mo., Feb. 13, 1864.

C. S. Maharg, Trainmaster districts 8 and 9 C.P.R. at Toronto, born in Dufferin County, Ont., Feb., 1867.

T. McNabb, Master Mechanic Alberta Ry. and Coal Co. and St. Mary's River Ry. at Lethbridge, Alta., born in Scotland, Feb. 16, 1849.

J. K. McNeillie, Car Service Agent C.P.R. at Winnipeg, Man., born at Toronto, Feb. 23, 1874.

D. MacPherson, Division Engineer C.P.R. at Montreal, born Feb. 2, 1858.

C. W. Milestone, ex-Superintendent C.P.R. at Moose Jaw, Assa., born at Medina, Ohio, Feb. 24, 1857.

C. Percy, Auditor G.T.R., Montreal, born in Kent, Eng., Feb. 12, 1845.

A. H. Robinson, Superintendent Elgin and Havelock Ry. at Petricodiac, N.B., born at Elgin, N.B., Feb. 2, 1862.

A. E. Rosevear, Freight Claim Agent G.T.R. at Montreal, born Feb. 20, 1863.

W. R. Russell, Superintendent Quebec Ry., Light and Power Co. at Quebec, born at Keene, Ont., Feb. 16, 1860.

J. G. Scott, General Manager Quebec and Lake St. John Ry. and Great Northern Ry. at Quebec, born there Feb. 13, 1847.

J. Troup, Manager Canadian Pacific Navigation Co. at Vancouver, born Feb. 5, 1855.

J. C. Ulrich, Superintendent Manitoulin and North Shore Ry. at Sudbury, Ont., born at Lebanon, Pa., Feb. 19, 1868.

Sir Wm. C. Van Horne, K.C.M.G., Chairman C.P.R. and President Cuba Co., Montreal, born in Will County, Ill., Feb., 1843.

F. Walker, Chief Train Dispatcher C.P.R. at North Bay, Ont., born at Pontiac, Ill., Feb. 8, 1867.

H. W. Walker, General Auditor G.T.R. at Montreal, born at Brantford, Ont., Feb. 12, 1839.

The B. Greening Wire Co. (Ltd.), Hamilton, Ont., give on their 1903 calendar illustrations of their factories, and of the handsome and commodious offices which they have just moved into. The additions to the factories recently completed include an enlargement of the weaving room, and a new paint tower. Among the special lines manufactured by the firm are wire ropes for ballast ploughs, switch ropes, derricks, coal haulage, etc., wire rope for locomotive smoke stacks, copper and brass cloth for car ventilators, etc. The firm was established in Hamilton in 1859 by B. Greening, and it was incorporated in 1889 with S. O. Greening, son of the founder, as President. The family came to Canada from Warrington, Cheshire, Eng., where Nathaniel Greening established a wire working business in 1799. Portraits of the three generations are reproduced on the calendar.

Halifax and Southwestern Ry.—Since pg. 39 went to press we have been informed that the contractor, J. A. Wheaton, was paid an estimate of \$4,300 by Mackenzie, Mann & Co., more than enough to pay the men's wages, which were subsequently paid by Mackenzie, Mann & Co.; that he paid his own sons and left without paying the others; and that he failed to meet the chief engineer, T. H. White, although he made several appointments to do so.

Railway Track Laid in 1902.

(This article is copyrighted with the other contents of this paper. Our contemporaries are at liberty to copy it if they prefix to it the words—"Reproduced from THE RAILWAY AND SHIPPING WORLD, Toronto.")

On Dec. 30, 1902, we issued a circular to all steam and electric railways in Canada, asking particulars of track laid during that year. Below is a compilation of the figures received in reply. No official information having come to hand from the Algoma Central and Hudson's Bay Ry., and the Bay of Quinte Ry., the figures given for those lines are approximate, and subject to revision. We desire to make our returns absolutely complete, and invite information as to any track laid which may have been omitted from our tables.

The total amount of track reported laid in 1902 is steam railways 501.72 miles; electric railways, 78.589 miles; total, 580.309 miles; against steam railways, 473.99 miles; electric railways, 23.86 miles; total, 497.85 reported laid in 1901. The C.P.R. laid the largest amount of track, 183.70 miles, Mackenzie, Mann & Co.'s system, the Canadian Northern, Edmonton, Yukon and Pacific and James Bay railways coming next with 95.43 miles. Mackenzie, Mann & Co. also laid 15 miles on the Schomberg and Aurora Ry.

STEAM RAILWAYS.

	Miles.	Miles.
ALGOMA CENTRAL AND HUDSON'S BAY Ry.—From Ogidaki towards Pangissin Ont. (Approximate).....	16.00	
ATLANTIC AND LAKE SUPERIOR Ry.—From New Carlisle to Paspebiac, Que.....	2.00	
BAY OF QUINTE Ry.—Between Deseronto and Napanee, Ont. (Approximate)....	6.00	
BRUCE MINES AND ALGOMA Ry.—From C.P.R. track to Lake Huron via Bruce Mines Village, Ont.....	2.00	
CANADIAN NORTHERN Ry.—Emerson branch, from Emerson towards Vassar or Sprague.....	14.0	
From Emerson to International boundary Carman branch, from mileage 11 beyond Carman towards Somerset.....	7.8	
Neepawa branch, from Katrim (Neepawa Jct.) to Neepawa.....	33.7	
McCreary branch, from Neepawa towards McCreary.....	15.8	
Rosburn branch, from Rosburn Jct. towards Clanwilliam.....	13.1	
Prince Albert extension, from Erwood westerly.....	4.0	90.50
CANADIAN PACIFIC Ry.—Snowflake branch, from Snowflake to Mowbray, Man. Waskada branch, from Waskada to Lyleton, Man.....	10.	
Winnipeg Beach branch, from West Selkirk to Winnipeg Beach, Man.....	26.	
McGregor branch, from Wellwood to Brookdale, Man.....	10.	
Branch from Forrest, from Wheatlands to Lenore, Man.....	26.	
Manitoba and Northwestern Ry., from Yorkton northwesterly towards Prince Albert.....	30.	
Pheasant Hills branch, from Kirkella towards Neudorf.....	40.	
Arrowhead and Kootenay Ry., from Tenderfoot Creek to Trout Lake, B.C.....	10.	
Vancouver and Lulu Island Ry., from ½ mile east of Eburne to Steveston, B.C.....	8.70	
Northern Colonization Ry.—From Labelle towards Nominique, Que.....	3.00	183.70
CAPE BRETON Ry.—From Point Tupper to Sporting Mountain, N.S.....	25.00	
CROW'S NEST SOUTHERN Ry.—From International boundary to junction with Morrissey Creek branch.....	43.35	
Morrissey Creek branch.....	4.80	48.15
DRUMMOND COLLIERY Ry.—From Granton towards Skinner's Point, N.S.....	1.51	
DURHAM SWITCH LINE Ry.—From Durham to Wilder's Lake, Ont.....	4.50	
EDMONTON, YUKON AND PACIFIC Ry.—From Strathcona to Edmonton, Alta.....	4.75	
FRANK AND GRASSY MOUNTAIN Ry.—From Frank to foot of Grassy Mountain, Alta.....	6.00	
GRAND TRUNK Ry.—From Berlin to Bridgeport, Ont.....	1.25	
From Wiarton to beet sugar factory.....	1.00	
Magnetawan River Ry., from Burk's Falls Jct. to Burk's Falls Wharf, Ont.....	1.32	3.57
JAMES BAY Ry.—From Seguin River to Dufferin St., Parry Sound, Ont.....	.20	
MOUNT SICKER Ry.—From overhead crossing of Esquimalt and Nanaimo Ry. to Crofton, B.C.....	6.00	
NEW BRUNSWICK Ry. AND COAL Co.—From Chipman to Newcastle, N.B. (Approximate).....	5.20	

	Miles.	Miles.
NORTH SHORE POWER, Ry. AND NAVIGATION Co.—From Bay of Seven Islands to falls of Ste. Marguerite River, Que.....	0.00	
ORFORD MOUNTAIN Ry.—From Kingsbury towards Windsor Mills, Que.....	1.00	
PRINCE EDWARD ISLAND Ry.—From Montagu Cross to Murray River.....	21.00	
QUEBEC AND LAKE ST. JOHN Ry.—From St. Andre Jc. to Metabochouan, Que.....	11.00	
SCHOMBERG AND AURORA Ry.—From Bond Lake to Schomberg, Ont.....	15.00	
ST. ANTHONY LUMBER Co.—From Whitney to Big Opeongo Lake, Ont.....	14.00	
SUN PORTLAND CEMENT Co.—From Shallow Lake station to McNab Lake, Ont.....	2.25	
TILLSONBURG, LAKE ERIE AND PACIFIC Ry.—From Tillsonburg to Ingersoll, Ont.	15.25	
VANCOUVER, VICTORIA AND EASTERN Ry. AND NAVIGATION Co.—From Laurier to Danville, B.C.....	15.00	
From Grand Forks Jct. to Grand Forks, B.C.....	2.00	17.00
VICTORIA TERMINAL Ry. AND FERRY Co.—From Topaz Ave. to Cormorant St., Victoria, B.C.....	1.14	501.72

The Canadian Northern Ry. during 1902 graded 234.5 miles, including the 20 miles on the Prince Albert extension from Erwood westerly, graded in 1901, but on which track was not laid. On this grade track was laid on 89 miles, leaving 145.5 miles of grade ready for the spring work. This mileage is distributed as follows:

	Miles.
Oak Point branch, from Winnipeg towards Oak Point.....	35.0
McCreary branch, from track end to McCreary.....	20.2
Rosburn branch, from track end to Clanwilliam.....	6.9
Grand View extension, from Grand View northwesterly.....	38.0
Prince Albert extension, from track end westerly.....	45.4
	145.5

The C.P.R. in addition to laying 183 miles of new track, has graded and ready for tracklaying an additional 15 miles on the extension of the Manitoba and North Western Ry. from Yorkton; and 55 miles on the extension from Kirkella, beyond Scissors Creek. The Co. also constructed 6 miles of double track between Brigham Jct. and Farnham, Que., and a deviation of about 7 miles between Field and Ottertail, B.C.

The statement of new track laid does not include second track or sidings.

The Lake Erie and Detroit River Ry. built deviations from its lines at Sombra, Wallaceburg and Dresden, Ont., 2 3-16 miles in all, which has the effect of slightly reducing the mileage.

ELECTRIC RAILWAYS.

	Miles.	Miles.
BERLIN AND BRIDGEPORT ELECTRIC STREET Ry.—In streets of Berlin, Ont.....	.80	
From Berlin to Bridgeport, Ont.....	1.45	2.25
BRANTFORD, ONT., STREET Ry.—Extension of lines in city.....	1.00	
BRITISH COLUMBIA ELECTRIC Ry.—From 9th Avenue to 16th Avenue, Vancouver.....	.50	
From Campbell Avenue to Cedar Cove, B.C.....	1.00	1.50
CAPE BRETON ELECTRIC Co.—In town of Sydney, N.S. (Approximate).....	5.00	
From North Sydney to Sydney Mines, N.S. (Approximate).....	5.00	10.00
GRAND VALLEY Ry.—From Brantford to Paris, Ont.....	7.00	
HAMILTON, GRIMSBY AND BEAMSVILLE ELECTRIC Ry.—From Beamsville to Vineyard.....	4.50	
INTERNATIONAL TRANS T. Co.—From Upton Road to steel plant, Sault Ste. Marie, Ont.....	4.00	
LEVIS COUNTY Ry.—In town of Levis, Que.....	3.00	
MONTREAL STREET Ry.—Various extensions in city.....	3.45	
PRESTON AND BERLIN Ry.—From Preston to Berlin, Ont. This line is to be operated at first by steam, but will probably be electrified during the year.....	9.00	
SANDWICH, WINDSOR AND AMHERSTBURG STREET Ry.—From Ojibwa to Canard River.....	6.50	
SOUTHWESTERN TRACTION Co.—From London city limits to near Lambeth, Ont.....	4.00	
SYDNEY AND GLACE BAY Ry. Co.—From Sydney to Glace Bay, N.S.....	31.00	
TORONTO Ry.—Extensions in city.....	1.179	

See additional particulars of the above in the next issue of the Railway and Shipping World.

WOODSTOCK, THAMES VALLEY AND INTERCOLONIAL ELECTRIC RY. In city of Woodstock, Ont.

Miles.
21
78.580

with supplementary road 91
The Transit, St. Mary's Traction Co. of Sault Ste. Marie, Mich., which laid 8 miles of track in 1902, is owned by the same interests owning the International Transit Co. of Sault Ste. Marie, Ont. A ferry is operated jointly by the two companies across the St. Mary's river.

SUMMARY BY PROVINCES.

	Steam.	Electric.
Manitoba	167.00	
British Columbia	90.99	1.50
Northwest Territories	85.35	
Ontario	78.77	30.00
Nova Scotia	26.51	31.00
Quebec	26.00	6.45
Prince Edward Island	21.00	
New Brunswick	5.20	
	501.72	78.580

Total new tracks laid, steam and electric..... 580.309.

TRANSPORTATION APPOINTMENTS.

American Locomotive Co.—J. McNaughton, who has been Superintendent of the Brooks works, has been appointed General Superintendent of the Schenectady and Brooks plants. W. L. Reid has been promoted from Assistant Superintendent of the Brooks works to Superintendent of the new works at Schenectady. R. H. Gilmour, formerly Mechanical Superintendent of the Canada Foundry Co., Toronto, has been appointed Superintendent of the Brooks plant.

Canadian Express Co.—R. G. Wilson, heretofore Agent at Toronto, has been appointed General Agent.

R. A. Mitchell, heretofore Cashier at Toronto, has been appointed Assistant to the General Agent at Toronto.

Canadian Northern Express Co.—Canadian Northern Telegraph Co.—Scott Griffin has been appointed Superintendent. W. C. Muir, heretofore agent of the Dominion Express Co. at Winnipeg, has been appointed Auditor. Offices at Winnipeg.

Canadian Northern Ry.—A. Shields, heretofore C.P.R. Locomotive Foreman at Winnipeg, has been appointed Master Mechanic, vice C. Raitt. Office at Winnipeg.

W. A. Brown, heretofore Superintendent of the C.P.R. at Moose Jaw, Assa., has been appointed Superintendent of the Winnipeg terminals and lines west of Winnipeg, vice J. T. Arundel, resigned to re-enter the C.P.R. service.

J. Phelan, heretofore with the Canadian Pacific Navigation Co. at Victoria, B.C., has been appointed agent at Port Arthur, Ont.

C. R. Stovel, formerly of Prince Albert, is looking after right-of-way matters and claims for stock killed, etc. Office at Winnipeg.

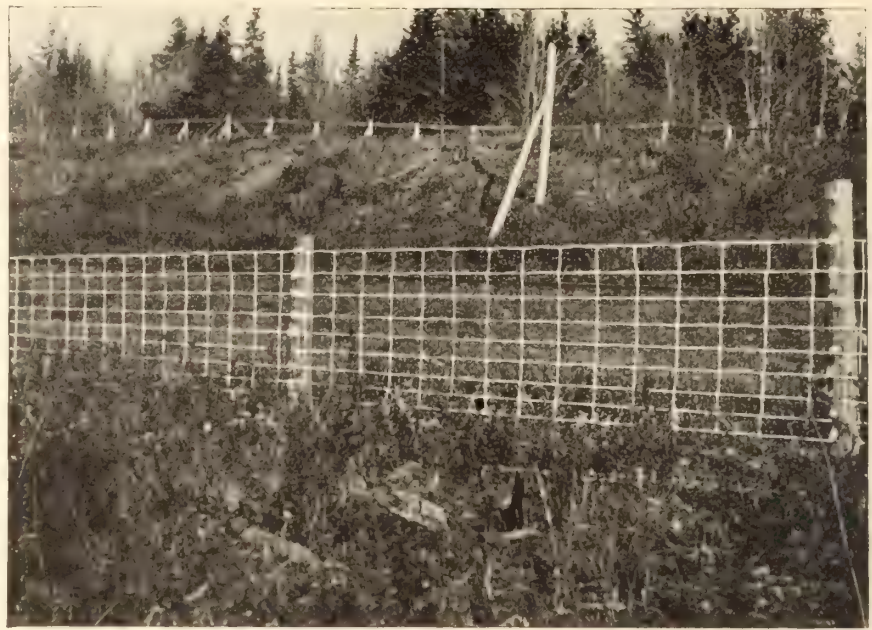
Arthur E. Cox, formerly storekeeper of the Manitoba and North Western Ry. at Portage la Prairie, Man., has been appointed storekeeper of the C.N.R. at Winnipeg.

A. W. Mackenzie, son of President W. Mackenzie, has been appointed Treasurer. Office at Toronto.

Canadian Pacific Ry.—R. J. E. Scott, Chief Inspector of Time Service, has also been appointed Chief Examiner for testing the color sense, sight and hearing of employees engaged in the movement and handling of engines and trains.

S. E. Taprell, Cashier in the Treasurer's office at Montreal, left the Co.'s service and also left Montreal early in Jan.

Press reports state that W. B. Brown, heretofore Chief Train Dispatcher at St. John, N.B., has been appointed Trainmaster, succeeding S. W. Powers, who has been appointed Chief Clerk to the Manager of Trans-



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Page coiled wire Fencing is in use on practically every railroad, both great and small, in Canada, and some of the railroads have in the neighborhood of a thousand miles of it. It is found that it wears so much better than any other fence that there is no comparison. We can supply any height and weight wanted, and either galvanized or painted. We also supply metal gates that do not sag, burn or rot. Prices compare favorably with any.

THE PAGE WIRE FENCE CO., Limited, - Walkerville, Ont., Montreal, P.Q., St. John, N.B.

BONZANO RAIL JOINT



Was Awarded the only
Medal and Diploma
for Rail Joints
at the National Export
Exposition
Philadelphia, 1899;

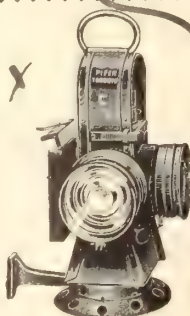
Also the Highest Medal awarded for Rail Splices at the Paris
Exposition, 1900.

Nearly one million of these joints are now in use. None of the splices have broken, and no rails have broken inside the splices. Low joints are impossible, nor can spreading of tracks take place at the splice. The joint is absolutely as strong as the rail. By its use the track labor saved will alone amount to a sum that will pay the cost of renewals of rails and splices.

In use on the following railroads: The Pennsylvania, Baltimore and Ohio, Canadian Pacific, Southern Pacific, Cuba Railway, Chicago & Alton, Southern Railway, Intercolonial Railway, Grand Trunk, Wisconsin Central, Michigan Central, Choctaw, Oklahoma & Gulf.

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A. BONZANO and THOS. C. CLARKE, Joint Owners of Canadian Patent No. 55,700,
MONTREAL ROLLING MILLS CO., Montreal,
Sole Manufacturers and Sales Agents for the Dominion of Canada,
East of Sudbury.



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LIMITED

TORONTO

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DEALERS IN

CHIMNEYS, WICK, BURNERS, ETC.

note then Mar 11, 1905 to call for this order

We take order in March. Ref. Mendenhall and return order

portation at Montreal; that W. F. Noble, heretofore first trick dispatcher at St. John, has been appointed Chief Train Dispatcher there; and that I. B. Merriman, hitherto trick dispatcher at Brownville Jct., Me., succeeds W. F. Noble.

Grant Hall, heretofore Master Mechanic of the Pacific Division, has been appointed Assistant Superintendent of Rolling Stock, lines east of Fort William, Ont. Office at Montreal.

James Murray, Track Inspector of the Western division at Winnipeg, has resigned, and the office has been abolished.

H. B. Bridges, heretofore Cashier at Winnipeg, has been appointed Local Treasurer there, succeeding J. A. Graham, deceased.

P. Langlois, of the general baggage department at Winnipeg, is reported to have resigned to go into real estate business.

J. T. Arundel, who recently resigned from the Co.'s service to enter that of the Canadian Northern Ry., has returned to the C.P.R. and has been appointed Superintendent of district 20. Office at Winnipeg.

F. Dillinger, heretofore acting Superintendent of district 20 at Winnipeg, has been appointed Superintendent of district 23. Office at Moose Jaw, Assa.

J. G. Taylor, heretofore acting Superintendent of district 22, has been appointed Superintendent. Office at Brandon, Man.

J. S. Dennis has been appointed Superintendent of Irrigation and B.C. Land Commissioner. Office at Calgary, Alta.

C. H. Temple has been appointed acting Master Mechanic of the Pacific division, with office at Revelstoke, B.C., succeeding Grant Hall, promoted to Montreal.

A. E. Stevens, heretofore train dispatcher at Vancouver, has been appointed Chief Train Dispatcher of district 30, at Nelson, B.C. N. S. Fraser, who has been acting Chief Dispatcher for some months, has been appointed trick dispatcher at Nelson.

The Vancouver, B.C., World says H. J. Cambie, Division Engineer there, will probably retire on July 1, under the new pension scheme.

F. Walker, Chief Train Dispatcher at North Bay, Ont., having resigned to enter the service of the Southern Pacific Co., has been succeeded by J. R. Lane, formerly train dispatcher at Farnham, Que.

J. O'Meara, hitherto Chief Train Dispatcher at Schreiber, Ont., who was given three months' leave of absence on account of ill-health, and who returned to duty recently, was, at his own request, transferred to North Bay, where he is now employed as first trick dispatcher.

H. B. Stevens, hitherto train dispatcher at Schreiber, Ont., has been appointed Chief Train Dispatcher there.

Chicago and Northwestern Ry.—W. P. Dempsey, heretofore clerk in the office of the General Agent at Toronto, has been appointed Travelling Agent for Canadian territory east of Manitoba and the Detroit and St. Clair rivers and west of Rivière du Loup, Que.

Elgin and Havelock Ry.—P. S. Archibald, of Moncton, N.B., formerly Chief Engineer I.C.R., has been appointed Manager in charge of operation of the E. and H. Ry., as well as to reconstruct a number of bridges, and make other improvements.

Grand Trunk Ry.—W. H. Biggar, K.C., has been appointed Assistant General Counsel, with office at Montreal. He will act for the General Counsel in his absence, and perform such other duties as may be assigned him.

Press reports state that in consequence of the recent accidents a Superintendent of Telegraphs is to be appointed, part of whose duties will be to put the operators through periodical mental, physical and practical tests, in order to make sure that their gen-

eral health is good and their mental condition sound. W. W. Ashald, Trainmaster at Montreal, is mentioned as likely to be appointed.

R. C. Manson, heretofore contracting agent at Montreal, has been appointed Travelling Freight Agent for the eastern division, succeeding F. J. Henstridge, transferred to Hamilton, Ont. Office at Montreal.

F. Adams, heretofore rate clerk in the freight claims office at Montreal, has been appointed Contracting Agent at Montreal, vice R. C. Manson, promoted.

A. G. McLellan has been appointed Locomotive Foreman at Stratford, Ont., vice B. Leckie, resigned.

W. Wensley has been appointed Locomotive Foreman at Niagara Falls, vice A. G. McLellan, transferred.

Illinois Central Rd.—W. J. McLean, heretofore Travelling Passenger Agent at New York, has been appointed General Eastern Passenger Agent there, succeeding A. J. McDougall, promoted to New Orleans, La. Mr. McLean's territory includes Canada, the business in which is specially looked after by G. B. Wyllie, Travelling Passenger Agent at Buffalo, N.Y.

Intercolonial Ry.—Duncan McLennan has been appointed Mechanical Foreman at Sydney.

M. A. McLeod has been appointed Mechanical Foreman at Point Tupper, with jurisdiction also at Mulgrave and Pirate Harbor.

Nathan Pushie has been appointed Local Superintendent at the Strait of Canso, having jurisdiction over the Mulgrave and Point Tupper terminals and the ferry; effective January 1st, 1903.

E. Tiffin, heretofore Traffic Manager, has been appointed General Traffic Manager.

Michigan Central Rd.—R. C. St. John has been appointed Assistant Chief Engineer. Office at Detroit, Mich.

The jurisdiction of M. J. McCarthy, Division Master Mechanic at St. Thomas, Ont., has been extended to cover the Car Department in Canada, in addition to his present duties. R. Potts, heretofore General Foreman of the Car Department at St. Thomas, has been assigned to duties which will be easier for him. He has not been pensioned, as stated in local papers.

Niagara Navigation Co.—The board has accepted Jno. Foy's resignation as General Manager, but has not yet appointed a successor. He remains a member of the board.

Orford Mountain Ry.—A. C. Lytle has returned to the service, having been appointed General Superintendent, General Freight and Passenger Agent and Accountant, with office at Eastman, Que., succeeding H. C. Cleveland.

Pere Marquette Rd.—The following directors have resigned: W. W. Crapo, Chairman of the Board; C. M. Heald, President; S. T. Crapo, General Manager; J. M. Graham, Vice-President, and O. W. Mink. The following, representing the syndicate which recently acquired control, were elected to fill the vacancies: T. H. West, W. K. Bixby, S. R. Shipley, N. Erb. The position of Chairman of the Board has not been filled. F. H. Prince, of Boston, Vice-President of the Mexican Central Ry., has been elected President; M. J. Carpenter, heretofore President of the Chicago and Eastern Illinois Rd., has been elected Vice-President and General Manager; N. Erb has been elected a member of the executive committee and appointed Assistant to the President; S. T. Crapo, heretofore General Manager, has been appointed General Superintendent. The office of Assistant to the General Manager has been abolished. A. Patriarche, heretofore Traffic Manager, has been appointed General Traffic Manager.

Temiskaming and Northern Ontario Ry.—C. R. Boucher has been appointed Division Engineer. Office at North Bay, Ont.

Victoria Terminal Ry. and Ferry Co.—F. Van Sant has been appointed General Manager, vice F. F. Mackenzie.

White Pass and Yukon Route.—I. W. Young has been appointed Purchasing Agent, vice E. B. Hussey, resigned. Office at Vancouver, B.C.

Mainly About People.

H. D. Annable, of the C.P.R. freight department, London, Eng., is spending a holiday in Canada.

Capt. Trotter, of Amherstburg, Ont., a well-known lake captain, died suddenly in London, Ont., Jan. 2.

Warren Y. Soper, of the Ottawa Electric Ry., and Mrs. Soper are spending a couple of months in California.

J. A. Graham, Local Treasurer, C.P.R., at Winnipeg, died there Jan. 15, of diabetes after a few weeks' illness.

The engagement of Dr. G. S. MacCarthy to Miss Audrey Blair, daughter of the Minister of Railways, is announced.

Jas. Ross, Vice-President, Montreal Street Ry., purposes going on a lengthened yachting cruise in the Mediterranean.

C. M. Hays, 2nd Vice-President of the G.T.R., and Mrs. Hays, gave a dance at the Windsor hotel, Montreal, Jan. 10.

J. W. Moyes, Manager of the Metropolitan Ry., Toronto, who underwent a surgical operation Dec. 22, is convalescent.

D. McMartin, railway contractor, Sault Ste. Marie, Ont., was married there recently to Miss I. Alderson, of Gordon Lake.

John Brown, C.P.R. ticket agent, Stratford, Ont., has been elected to represent North Perth in the Ontario Legislature.

D. Linahan, formerly travelling locomotive inspector of the eastern division of the C.P.R., died recently at Richmond, Que.

G. J. R. Tierney, eldest son of J. R. Tierney, city ticket agent C.P.R. at Annapolis, Ont., died there Jan. 14, after a brief illness.

H. S. Holt, President of the Montreal Light, Heat and Power Co., left Montreal Jan. 16 for three months on account of ill health.

E. E. Ling, Assistant General Manager and Treasurer, Great Northern Ry. of Canada, left Quebec Jan. 5, for a trip to Great Britain.

W. C. Hawkins, General Manager of the Hamilton Electric Light and Cataract Power Co., has recovered from an attack of ptomaine poisoning.

H. St. Dizier, who for many years conducted a joint ticket agency in the old Balmoral hotel, Montreal, died in that city Jan. 2, aged 67.

J. B. Morford, Division Superintendent Michigan Central Rd. at St. Thomas, Ont., has gone to Cambridge Springs, Pa., owing to ill-health.

F. Walsh, Local Manager, Bell Telephone Co., Winnipeg, is spending a holiday in California, and during his absence H. J. Horn is acting Manager.

Sir C. Rivers Wilson, President G.T.R., has been appointed a trustee of the Birmingham, Eng., Tramways Co., succeeding Jas. Ross, of Montreal.

H. R. Stewart, general agent of the Lake Erie and Detroit River Ry. at Sarnia, Ont., has resigned and has entered the service of a financial institution.

BALDWIN LOCOMOTIVE WORKS.

SINGLE EXPANSION AND COMPOUND LOCOMOTIVES.



Broad and Narrow Gauge Locomotives; Mine and Furnace Locomotives; Compressed Air Locomotives; Steam Cars and Tramway Locomotives; Plantation Locomotives; Oil Burning Locomotives.

Adapted to every variety of service, and built accurately to gauges and templates after standard designs or to railroad companies' drawings. Like parts of different engines of same class perfectly interchangeable.

**Electric Locomotives and Electric Car Trucks
with Westinghouse Motors.**

Burnham, Williams, & Co., - - Philadelphia, Pa., U.S.A.

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**Springs, Frogs Interlocking Plants Installed
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FOR STEAM AND ELECTRIC RAILWAYS.

**Eugene F. Phillips Electrical Works, Limited,
MONTREAL, CANADA.**

BARE AND INSULATED ELECTRIC WIRE

Electric Light Line Wire, Incandescent and Flexible Cords,

RAILWAY FEEDER AND TROLLEY WIRE

Americanite, Magnet, Office and Annunciator Wires,
Cables for Aerial and Underground Use.

RAILWAY SUPPLIES

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or
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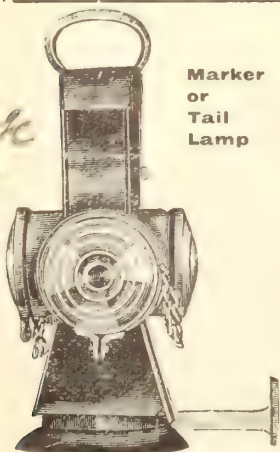
**STANDARD RULE TRAIN LAMPS
SWITCH LAMPS
STATION LAMPS
SHIP LAMPS
TRAIN ORDER SIGNALS**

The Hiram L. Piper Co.

12 St. Peter Street, MONTREAL

Limited

Manufacturers and Patentees



C. P. R. LANDS.

The Canadian Pacific Railway lands consist of the odd-numbered sections along the Main Line and Branches, and in Northern Alberta and the Lake Dauphin District. The Railway Lands are for sale at the various agencies of the company in Manitoba and the North-West Territories at the following prices:

Lands in Manitoba and Assiniboia average \$3 to \$6 an acre.

Lands in Alberta and Saskatchewan with the exception of some special locations where prices range from \$3.50 to \$5.00 per acre, generally \$3.00 per acre.

TERMS OF PAYMENT.

In the case of an actual settler who goes into residence upon and cultivates the land, the aggregate amount of purchase money and interest is divided into ten instalments, as shown in the table below; the first to be paid at the time of purchase, the second two years from date of purchase, and the remainder annually thereafter.

160 acres at \$3.00 per acre, 1st instalment \$71.90, and nine equal instalments of \$60.
160 acres at \$3.50 per acre, 1st instalment \$83.90, and nine equal instalments of \$70.
160 acres at \$4.00 per acre, 1st instalment \$95.85, and nine equal instalments of \$80.
160 acres at \$4.50 per acre, 1st instalment \$107.85, and nine equal instalments of \$90.
160 acres at \$5.00 per acre, 1st instalment \$119.85, and nine equal instalments of \$100.
160 acres at \$5.50 per acre, 1st instalment \$131.80, and nine equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$143.80, and nine equal instalments of \$120.

Purchasers who do not undertake to go into residence on the land within one year from date of purchase are required to pay one-sixth of the purchase money down and the balance in five equal annual instalments with interest at the rate of six per cent. per annum.

DISCOUNT FOR CASH. If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. of the amount paid in excess of the usual cash instalment.

Interest at six per cent. will be charged on overdue instalments.


Write for maps and full particulars.

F. T. GRIFFIN, - Land Commissioner,

WINNIPEG.

Edward L. Drewry

**REDWOOD
BREWERY,**

Fine  Winnipeg, Manitoba

ALES, EXTRA PORTER

... AND ...

PREMIUM LAGER.

*Most Extensive and Complete Brewery
and Maltheuses in Western Canada.*

CHOICE MALT FOR SALE.

Manufacturer of the Celebrated

Golden Key Brand **AERATED WATERS.**

TORONTO ENGRAVING CO.
DESIGNERS, ENGRAVERS,
ELECTROTYPERS.
92 BAY ST.

D. B. Hanna, Third Vice-President Canadian Northern Ry., has removed from Winnipeg to Toronto. Mrs. Hanna and family will join him in the spring.

J. R. Malcolm, who has been appointed Chief Train Dispatcher of the Seaboard Air Line Ry. at Savannah, Ga., is an old I.C.R. employe at Moncton, N.B.

C. H. Buell, chief clerk in the office of the Assistant to the Second Vice-President, has also been placed in charge of the organization of the pension department.

W. Armstrong, for many years mail clerk on the G.T.R., died recently at the residence of his brother, J. Armstrong, Chief Dispatcher, C.P.R., Farnham, Que.

James Leeming, General Freight Agent of the Erie division of the Erie Rd., died at Buffalo, N.Y., recently, and was buried at Brantford, Ont., his native place.

Capt. Jas. Foote, of the C.P.R. lake fleet, was removed to his home in Owen Sound, Ont., Jan. 10, after undergoing special treatment in Toronto General Hospital.

W. R. MacInnes has been taking a short holiday in Bermuda with Mrs. MacInnes, prior to assuming his new duties as C.P.R. Freight Traffic Manager in Montreal.

Lyman Dwight, Superintendent of the G.N.W. Telegraph Co. at Winnipeg, and Mrs. Dwight are at Augusta, Georgia, and will probably remain there until spring.

E. E. Torrey, recently Superintendent of Telegraphs, Michigan Central Rd., has been appointed to a similar position on the Mobile and Ohio Rd. at Jackson, Tenn.

Lord Mount-Stephen has presented his quarter interest in the New York block, Granville st., Vancouver, valued at \$15,000, to the Vancouver General Hospital fund.

T. B. Hawson, formerly Auditor of the G.T.R., and now living in Chicago, is the subject of an appreciative sketch in a recent issue of the British-American, of that city.

D. O. Wood, who was recently appointed western representative for the Robert Reford Co., steamship agents, Montreal, has opened an office at 311 Board of Trade, Toronto.

Sir Thos. and Lady Shaughnessy have been visiting in Washington, D.C. On returning to Montreal Sir Thomas said that his trip to Washington was entirely of a social character.

C. C. Chipman, Commissioner Hudson's Bay Co., Winnipeg, and Archer Baker, European Traffic Agent C.P.R., attended the dinner of the Canadian Club in London, Eng., Dec. 4.

G. A. Fletcher, of Philadelphia, Pa., one of the promoters and builders of the Halifax and Yarmouth Ry. from Yarmouth to Barrington, N.S., died suddenly in Philadelphia recently.

J. Ratcliffe, who has had charge of the preparation and revision of the C.P.R. timetable folders, in connection with the advertising department, for many years, died recently in Montreal.

Andrew Campbell, son of Capt. P. M. Campbell, of the str. *Majestic*, has been awarded the medal of the Humane Society for saving the life of a boy at Sault Ste. Marie, Ont., last summer.

C. F. Hillman, who was one of the engineers in charge of construction of the old Great Western Ry. between 1854 and 1857, and has since been resident in Chile, died there recently, aged 67.

D. A. Cameron, of the C.P.R. General Passenger Agents' office at Winnipeg, Man., was presented with a purse of gold by his fellow-clerks on leaving to enter business on his own account in Japan.

W. C. Blake, of the G.T.R. audit department, Montreal, was presented with a gold

signet ring by the clerks in the department, on his removal to Winnipeg, to enter the service of the Canadian Northern Ry.

H. C. Tilley was presented with a signet-ring and an illuminated address, at a farewell dinner, by the employees of the Elgin and Havelock Ry., at Havelock, N.B., on retiring from the position of Manager of the line.

J. Dickenson, barrister, Barrie, Ont., died there Jan. 20. Prior to taking up the study of law, he was a civil engineer and was Chief Engineer of Construction of the line from Barrie to Orillia and to Penetanguishene, Ont.

J. F. Lee, who recently resigned his position as General Traffic Manager of the White Pass and Yukon Route, has been elected President and General Manager of the Pacific Coast Fixture and Electric Co., Seattle, Wash.

C. E. E. Ussher, General Passenger Agent, Eastern Lines, C.P.R., was elected a member of the executive committee of the North American Fish and Game Protection Association at the annual meeting held in Ottawa recently.

D. Campbell, who was recently appointed relieving train dispatcher, Algoma Central and Hudson Bay Ry. at Sault Ste. Marie, Ont., was married at Kingston, Ont., to Miss Swarbrick, before moving to his new place of residence.

T. H. Holt, who was appointed Manager of Construction of the Halifax and Southwestern Ry. last summer, but who was forced to retire owing to ill health, is now under treatment in Boston. His wife and family have gone to Europe.

W. I. Mackenzie, Manager of the Land Security Co., Toronto, who died Jan. 22, aged 79, was at one time a railway contractor, and did work on the Toronto, Grey and Bruce Ry., and was also associated with the Detroit and Milwaukee Ry.

Sir C. Rivers Wilson, President G.T.R., was invited by the Khedive of Egypt to attend the opening of the Nile dam at Assouan in Dec., but was unable to be present. Sir Rivers was formerly financial adviser to the Egyptian Government.

H. C. Johnston, clerk in the C.P.R. audit department at Montreal, has been sentenced to two years' imprisonment in St. Vincent de Paul Penitentiary for giving information to conductors when secret audits of their train accounts were to be made.

G. R. Joughins, formerly Mechanical Superintendent of the Intercolonial Ry., and now Mechanical Superintendent of the coast lines of the Atchison, Topeka and Santa Fe Rd., has recently had his headquarters removed from San Bernardino to Los Angeles, Cal.

J. Murray, Track Inspector of the C.P.R. at Winnipeg, has resigned his position and is taking a trip round the world. It is reported that he will engage in business with his brother, Sir John Murray, in developing some extensive guano deposits on Christmas island in the Pacific ocean.

E. A. James, General Superintendent Canadian Northern Ry. at Winnipeg, was recently presented with a gold watch and chain by the employees of the train, freight and track service departments of the C.P.R. on his resigning the position of Superintendent of Transportation of that Co.

Scott Griffin, who has been appointed Superintendent of the Canadian Northern Express Co. and the Canadian Northern Telegraph Co. at Winnipeg, Man., is a son-in-law of President W. Mackenzie, of the Canadian Northern Ry. He is a barrister, and formerly lived in Toronto.

J. M. Herbert, who was Superintendent of the Eastern division of the G.T.R. at Mont-

real to Oct., 1900, has recently been elected Vice-President and General Manager of the Colorado and Southern Ry., and Vice-President of the Fort Worth and Denver City Ry., with headquarters at Denver, Col.

Thos. Merritt, who was Managing Director of the old Welland Ry., recently celebrated his golden wedding at St. Catharines. Among the guests were Mr. and Mrs. Pay, who celebrated their diamond wedding a few months ago. Mr. Pay was Superintendent of the Welland Ry., under Mr. Merritt's management.

C. M. Hays, Second Vice-President and General Manager of the G.T.R., has purchased the residence of the late Jas. Burnett, stockbroker, on Ontario avenue, Montreal, for, it is said, \$62,500. It is a large house with ample grounds and was once owned by R. B. Angus, C.P.R. director. Mr. Hays will considerably alter and improve it.

P. M. Cotter, joint agent of the Quebec and Lake St. John and Great Northern Rys. at Quebec, was recently presented with a purse of gold by J. G. Scott, General Manager, on behalf of the employees of the two companies, on his leaving to become agent for the Quebec Central Ry. at its Dalhousie st. offices in Quebec, where he has succeeded G. Addie, who resigned owing to ill health.

Capt. F. H. Vercoe, who was engaged on railway construction work in South Africa under Col. Sir Percy Girouard, and who superintended the construction of the railway from Bloemfontein to Sanna's Post, Orange River Colony, died in Bloemfontein Dec. 27. He was born at Seaford, Ont., and was a brother of H. L. Vercoe, of the Canadian Northern Ry. engineering staff at Winnipeg.

The New England General Baggage Agents' Association elected the following officers at its recent annual meeting:—President, R. H. Morris, C.P.R.; Vice-President, J. C. Lennox, Boston and Albany Rd.; Sec.-Treas., G. E. Byram, Boston and Maine Rd.; Executive Committee: J. E. Quick, G.T.R.; H. H. Towle, Maine Central Rd.; G. A. Norton, New York, New Haven and Hartford Rd..

In an article on "University Men as Journalists," the *Monetary Times*, of Toronto, in a recent issue said: "Another name we cannot forbear to mention. It is that of W. H. Moore, B.A., who for several years was assistant editor of the *Monetary Times*, and proved himself a painstaking and versatile writer. But the 'pent-up Utica' of Toronto journalism could not contain him. He had studied law between times, and is now the solicitor for Mackenzie & Mann, of the Canadian Northern Ry. of Ontario and the Great Northwest."

Jas. Yeo, who for 27 years was Supervisor on the Quebec Division of the Intercolonial Ry., and retired two years ago, has received his certificate from the Ontario Government of a free grant of land in New Ontario. He saw active service during the Fenian Raid of 1866, and was color-sergeant in the 10th Royal Grenadiers, Toronto. He also served on the staff of the old Northern Ry. of Canada as Roadmaster on the line between Collingwood and Toronto. He was in poor health some months ago, but has now quite recovered.—Quebec Telegraph.

A. C. Lytle, who has been appointed General Superintendent and General Freight and Passenger Agent and Accountant of the Orford Mountain Ry. at Eastman, Que., was born June 6, 1854, at Hemingford, Que., and entered railway service Sept. 2, 1872, since which he has been consecutively to Nov., 1879, station agent, G.T.R.; Nov., 1879, to June, 1893, engaged in mercantile business; June, 1893, to Jan., 1902, General Freight and Passenger Agent, Orford Mountain Ry.;

Sept., 1894, to Jan., 1902, he was in addition Superintendent same road; Jan., 1902, to Jan., 1903, in mercantile business.

D. O. Wood, who has been appointed Western Agent for the Robert Reford Co., Ltd., Montreal, was born at Kleinburg, Ont., Mar. 16, 1864, and entered railway service in May, 1883, as clerk in the freight office of the G.T.R. at Toronto. After serving in various capacities he was subsequently promoted to the Division Freight Agent's office at Toronto, and served as rate clerk, claims clerk and chief clerk, being appointed Assistant Foreign Freight Agent at Toronto, in Dec., 1897, which position he has resigned to take up his present appointment.

W. M. Kirkpatrick, who has been appointed Assistant General Freight Agent, Pacific division, C.P.R., is a son of the late Sir George A. Kirkpatrick, formerly one of the C.P.R. directors. He was born at Kingston, Ont., Oct. 8, 1874, and entered railway service Mar. 7, 1892, in the office of the Vice-President of the C.P.R., since which time he has filled various positions in the Chief Engineer's office, foreign freight office, Montreal, General Freight Agent's office, Toronto; and from July, 1899, to Dec., 1902, has been chief clerk in the office of the Fourth Vice-President.

W. H. Biggar, who has been appointed Assistant General Counsel to the G.T.R. at Montreal, was born at the Carrying Place, near Trenton, Ont., Sept. 19, 1852, and was educated at Trenton Grammar School, and Upper Canada College, and began the study of law in 1875, after engaging for a short time in mercantile pursuits. He was called to the bar in 1880, and became associated with John Bell, K.C., General Counsel to the G.T.R., in general practice in 1881. He was elected Mayor of Belleville in 1887, represented West Hastings in the Ontario Legislature from 1890 to 1897, and was made a K.C. in 1900.

C. N. Monsarrat, A.M. Can. Soc., C.E., who has been appointed Engineer of Bridges, C.P.R., at Montreal, was born there July 2, 1871, and entered railway service Nov., 1889, since which his record has been: Nov., 1889, to June, 1896, structural draughtsman in office of the Chief Engineer, Montreal; June, 1896, to April, 1897, inspector of steel bridges, having in charge their manufacture and erection; April, 1897, to Dec., 1901, engaged in designing and estimating structural work and engineer in charge of erection of many important structures in B.C. and elsewhere; Dec., 1901, to Jan., 1903, Assistant Engineer at Montreal, entire service with the C.P.R.

M. J. Carpenter, who has been appointed Vice-President and General Manager of the Pere Marquette Rd., and consequently will have charge of the Lake Erie and Detroit River Ry., was born at Caledonia, Ill., April 12, 1850, and entered railway service as operator on the Chicago, Milwaukee and St. Paul Ry. in 1869, and after filling various positions in that Co.'s service, was appointed Division Superintendent of the Chicago, St. Paul and Kansas City Ry.; and later was appointed General Manager of the Duluth and Iron Range Ry., subsequently becoming its President, and until his recent appointment was President of the Chicago and Eastern Illinois Rd.

Fred. Sleere Darling, who has been appointed Division Engineer of Construction, C.P.R., at Montreal, was born at Burlville, R.I., Oct. 8, 1863, and entered railway service in May, 1887, since which his record has been: May, 1887, to Jan., 1888, engineering office during construction of Duluth, Watertown and Pacific Ry., branch of Great Northern Ry., U.S.; Jan., 1888, to May, 1888, topographer on surveys for Yankton and Sioux Falls Ry., branch of the Great Northern Ry.; May, 1888, to

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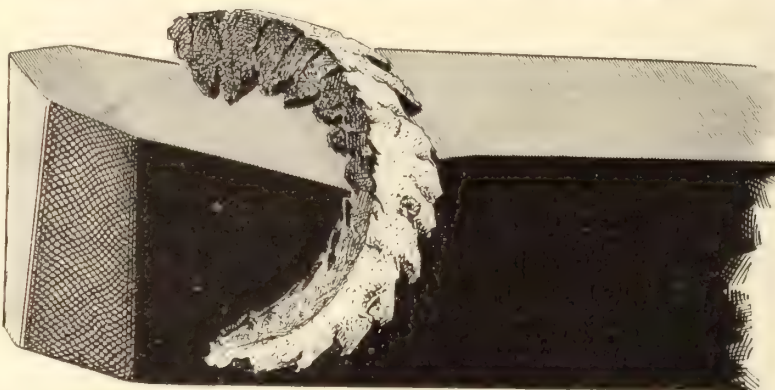
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BOOKBINDING

July, 1888, rodman on surveys for Eastern Ry. of Minnesota, branch of Great Northern Ry.; July, 1888, to Dec., 1902, successively leveller, Assistant Engineer and Division Engineer Northern Pacific Ry.

Grant Hall, who has been appointed Assistant Superintendent of Rolling Stock, C.P.R. lines east of Fort William, was born in Montreal in 1864. He entered the G.T.R. shops at Montreal as an apprentice in 1883. His subsequent record is as follows: May, 1888, to June, 1889, locomotive foreman, C.P.R. at Megantic, Que.; June, 1889, to April, 1890, locomotive foreman, C.P.R. at Brownville Jct., Me.; April, 1890, to Mar., 1893, locomotive foreman, C.P.R. at Windsor st., Montreal; Mar., 1893, to July 31, 1898, general locomotive foreman, I.C.R., at Moncton, N.B.; Sept., 1898, to Jan., 1899, locomotive foreman, C.P.R., Windsor st., Montreal; Jan., 1899, to Feb., 1901, general foreman, C.P.R., MacAdam Jct., N.B.; Mar., 1901, to July, 1901, general foreman, C.P.R. shops, Winnipeg; July 26, 1901, to Dec., 1902, master mechanic, Pacific Division, C.P.R., at Revelstoke, B.C.

B. W. Greer, who has been appointed General Freight Agent of the C.P.R., at Vancouver, B.C., was born at Aldboro, Ont., Oct. 4, 1867, and entered railway service at St. Thomas as call boy for the C.P.R., Dec. 24, 1874, since which his record has been: June, 1875, to June, 1886, night operator at St. Thomas; transferred to Woodstock, and later appointed clerk in freight office at Galt; 1886 to 1887, station agent at Hillsburgh; 1887 to June, 1890, cashier and chief clerk; June, 1890, to Jan., 1891, soliciting freight agent, Union Pacific Rd., at Tacoma, Wash.; Jan., 1891, to May, 1893, ticket clerk, Northern Pacific Rd., at Tacoma, Wash.; May, 1893, rejoined the C.P.R. service as ticket clerk at Portland, Ore., and was appointed Freight and Passenger Agent at Tacoma for same road in 1897; Sept., 1898, to Oct., 1901, Freight and Passenger Agent, same road, at Victoria, B.C.; Oct., 1901, to Jan., 1903, Assistant General Freight Agent, Pacific division, same road, at Vancouver, B.C.

F. W. Peters, who has been appointed Assistant Freight Traffic Manager for the C.P.R. Western Lines at Winnipeg, was born at St. John, N.B., Mar. 25, 1860, and entered railway service in 1873, as telegraph operator with engineers on construction, I.C.R., and from 1873 to 1876, acted as agent at Jacquet river and other points, same road; 1876 to 1878, assistant agent, Newcastle, N.B., same road; 1878 to 1880, agent Chatham Jct., N.B., same road; 1880, to Nov., 1881, relieving agent on Chicago and Grand Trunk Ry. at Fort Gratiot, Mich.; Nov., 1881, to May, 1882, billing clerk local freight office C.P.R. at Winnipeg; May, 1882, to April, 1889, agent C.P.R. at Brandon, Man.; April, 1889, to June, 1889, agent C.P.R. Fort William, Ont.; June, 1889, to Nov., 1896, local freight agent, C.P.R. at Winnipeg; Nov., 1896, to 1899, District Freight Agent, C.P.R., West Kootenay district, at Nelson, B.C.; 1899, to Dec., 1900, Assistant General Freight agent, same territory; Dec., 1900, to July, 1901, Assistant General Freight Agent, Pacific Division C.P.R.; July, 1901, to Dec., 31, 1902, General Freight Agent, same division.

C. R. Boucher, who has been appointed Division Engineer of the Temiskaming and Northern Ontario Ry. at North Bay, Ont., was born at Southampton, Eng., June 4, 1849, and was a pupil of Sir Edwin Clark, C.E. Coming to Canada in 1867 he was successively Assistant Engineer to the Windsor and Annapolis Ry., (now Dominion Atlantic Ry.), and the Nova Scotia and New Brunswick Ry. (now I.C.R.), and subsequently was engaged as contractor's engineer for the late F. Shanley, C.E., on the Toronto, Grey and Bruce Ry., now part of the C.P.R. system; the

Canada Air line, and the Midland Ry., now amalgamated with the G.T.R. system. From 1874 to 1876 he was engaged on special work in Glasgow, Scotland, and Manchester, Eng.; and since his return to Canada in the latter year has been engaged on the following railways: Assistant Engineer, Detroit, Mackinac and Marquette Rd.; Resident Engineer, Northern Pacific Ry.; on construction western and Pacific divisions C.P.R.; Manitoba and North Western Ry.; Great Northwest Central Ry.; Northern Pacific and Manitoba Ry.; St. Paul, Minneapolis and Manitoba Ry.; Chief Engineer on surveys, etc., Manitoba Central Ry. project; Montreal and Western Ry.; Bangor and Aroostook Rd.; Principal Assistant Engineer, Woodstock and Centreville Ry. project; on construction Inverness and Richmond Ry.; and 1900 to 1902, on Algonia Central and Hudson's Bay Ry.

Miscellaneous Notes.

The Hampton & St. Martin's Ry., N.B., has been closed for freight traffic.

The Dominion Wire Rope Co. (Ltd.), of Montreal, has increased its capital from \$50,000 to \$200,000.

The Victoria Rolling Stock Co. of Ontario has declared a dividend of 6% for the half year ended Nov. 30, 1902.

The St. John's, Nfld., street railway is to be run all winter for the first time. The Co. has procured two powerful sweepers.

The Central Ry. of New Brunswick has been temporarily closed for freight traffic, owing to blockade at Norton, N.B.

Winnipeg citizens have decided by 2,370 against 2,166 votes that the Winnipeg Street Ry. Co. shall not run cars on Sundays.

All aboard for the Arctic Ocean may become a familiar announcement at the Grand Trunk stations in the future.—Toronto Globe.

The Montreal St. Ry. will have sight-seeing cars in operation next summer under the management of the National Car and Coach Co. of Boston, Mass.

The Quebec Southern Ry. has discontinued for the winter its suburban train service from Longueuil to Montreal, the ice road across the river having been established.

The employees of the I.C.R. are considering the advisability of asking the Dominion Government to establish a pension system on somewhat similar lines to that adopted by the C.P.R.

An express passenger service will be inaugurated next summer between Riviere du Loup, Que., and St. John, N.B., over the line of the Temiscouata Ry. to Edmundston, and thence by the C.P.R.

The question of when the C.P.R. lands in the Northwest should be taxed is to be tested. A township in North Cypress, Man., is to be taxed, and the C.P.R. will submit that the 20 years for which its lands would be free from taxes has not expired.

The British Yukon Ry. Co. has passed by-laws regulating the tolls to be charged for passengers and freight on the White Pass and Yukon Ry. Copies of the by-laws with tables of the rates annexed were published in the Canada Gazette, Dec. 6th.

The collection of pictures made by the G. T.R. passenger department, and exhibited in different centers in the U.S. to advertise the tourist resorts of Canada reached by its lines, will be placed on exhibition in the Southern and Middle states during February.

The 4th annual meeting of the Engineers' Club of Toronto was held Jan. 7, when the officers for the ensuing year were elected. There are 88 resident and 24 non-resident members, against 77 resident and 24 non-resident at the annual meeting in Jan., 1902.

The C.P.R. and the G.T.R. originally intended to have ticket offices in rooms at the new King Edward hotel, King St. East, Toronto. This intention has been abandoned, and a joint ticket office will be opened in the rotunda, the companies renting the offices they had previously intended to occupy.

The Michigan Central Rd. has planted 34,000 catalpa trees on the banks, and at 14 stations along its Canadian section. In 1900 20,000 trees were planted, and in 1901 14,000 more, and the experiment has proved so successful that it is proposed to plant about 60 acres at the stations along the Joliet and Western divisions of the line.

The I.C.R. calendar for 1903 is a very striking one. It is a litho production in imitation of pyrography or burnt wood, the main feature of the design being the trade mark or coat of arms of the line. The moose head lends itself very appropriately to this branch of illustrative art, and stands out much more prominently than in ordinary black on white.

The Railway Arbitration Bill, which was submitted at the last session of the Dominion Parliament by Sir Wm. Mulock, will not be brought forward at the ensuing session. The bill was held over for discussion by the railway managers and employees, and as a result of representations made, a new bill is being prepared which is expected to embody the suggestions made.

The Canadian and New England Passenger Agents' Association held a meeting in Montreal Jan. 8, to adopt schedules for summer rates for 1903. The schedules adopted are practically the same as have been in operation for the past four years. The social features connected with the meeting were a drive round the mountain, a visit to the G.T.R.'s new offices, and a visit to the Montreal Hunt Club. C. B. Hibbard, Passenger Traffic Manager of the Rutland Rd., is President of the Association, which has not met in Canada prior to the recent meeting.

The Michigan Central Rd. has established a new fast freight line to be known as the Ontario and Michigan Central. It will run over the tracks of the Michigan Central, the Rome, Watertown and Ogdensburg division of the New York Central and the New York, Ontario and Western. Westbound, the Ontario and Michigan Central will be a differential line, but in the other direction standard rates will be observed. The officials are: General Manager, J. C. Anderson, New York; General Eastern Agent, J. R. Dunbar, New York; Agents, W. J. Moore, Detroit, Mich.; B. E. Hand, Chicago.

Canadian Ticket Agents' Association.

M. McNamara, President, has issued a circular to members as follows: "Taking advantage of the Secretary's annual holiday expression of good-will towards the members, in which he usually gently suggests the desirability of forwarding our fees for the coming year, I desire to express my thanks for the confidence with which you honored me by electing me to the position of President of the Association. I appreciate your good-will, and will do my best to discharge the duties of the office to your satisfaction. Our esteemed Secretary is not to be regarded as being influenced altogether by mercenary motives in urging a renewal of our annual subscription; it is a necessary business precaution, and has a material effect on the success of our Association. My own part in the management of its affairs, is largely ornamental, but within the scope of my executive powers, I am anxious that the year 1903 should be distinguished above all others for success in point of numbers, and comfort in

the arrangements of our annual excursion. An excellent committee has been formed, whose members, profiting by the experience of former years, are determined to make our next meeting the banner record of the Association. The proposed new departure of an insurance scheme requires careful attention, and I trust that all members will reflect on the matter in the interval before our general meeting. It appears to have worked well in the large organization of the Lehigh Valley Co., whose genial General Passenger Agent introduced it to our notice. I have no doubt that the gentlemen to whom it was referred, will give the subject the careful attention due to its proposed adoption by our Association. It may be said that we have pretty nearly reached the limit of our usefulness under present conditions, and that if we do not make a further advance we are in danger of stagnating. The nature of our next move is therefore a matter of importance, and with the hope of making it as effective as possible, I trust that each member will put forth every possible effort to get all eligible parties within his reach to join the Association. By increasing our strength, we may ultimately impress the managers of the big companies with the desirability of financially increasing the attractiveness of our duty. The officers of the Association will be at all times happy to second their possible aspirations in that direction."

The following extracts are taken from a circular issued at the same time, by E. De la Hooke, Secretary Treasurer: "Solomon said 'Of making many books there is no end,' and do you know that I am sometimes inclined to think that the saying would be equally applicable to circulars, for it appears to me that no sooner is one launched than it is necessary to lay the keel of another. If, however, those to whom such circulars are addressed, read them (results often warrant me in thinking otherwise), I have the satisfaction of knowing that what may be harrowing to me must mean ploughing to them."

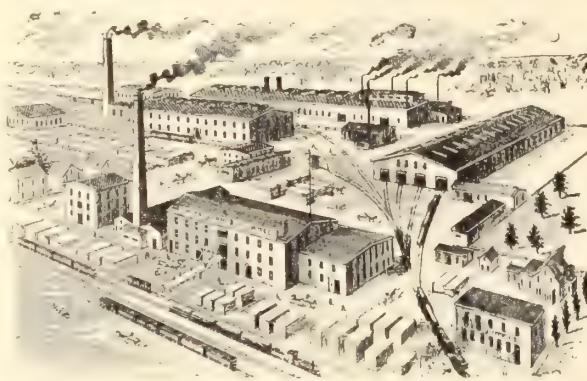
"Your having had quite recently the opportunity of reading in the columns of our official organ, THE RAILWAY AND SHIPPING WORLD, a graphic and correct account of our annual meeting recently held at Washington, and its attendant outing, renders it unnecessary for me to revert to it, its especial character and influence will be long treasured in the minds of those who journeyed in the ranks of the gratified and grateful two hundred. It can readily be believed that having been kept so constantly on the move while away that it was not until home was reached and rest obtained, that any adequate idea could be formed of all that had been seen and experienced of the beauties and marvels of nature and the won-

derful works of man. The Secretary for some days after his return was kept busy writing letters of thanks to the many who had entertained us, and had put themselves to no small inconvenience to do all that was possible to enhance the enjoyment of our trip."

"The selection of Sydney, N.S., as the next place of meeting was made unanimous, and in connection therewith visits will, in all probability, be made to St. John, N.B., Halifax, N.S., and Charlottetown and Summerside, P.E.I. But few will have forgotten the pleasure of the trip to the same territory in 1896. The Intercolonial Ry., in conjunction with the C.P.R. Company, were desirous of giving us a second taste of its quality, and we, with our ever receptive capacity and a

lively recollection of previous hospitality at the same hands, graciously accepted. A meeting of the executive will probably be held towards the end of April to arrange the leading features of the trip, which, it is to be hoped, will be of such a character as to draw the world and his wife to the Maritime Provinces early in October."

"Among other matters that will likely be considered by the executive are: The proposed mutual insurance scheme. The admission of steamboat coupon ticket agents to membership. Sending a delegate to the next annual meeting of the American Association of General Passenger and Ticket Agents to be held at New Orleans in Oct. next. The Association should feel complimented at hav-



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Grand Trunk Elevators, No. 1 and No. 3, Portland, Me.	2,500,000 "
Export Elevator, Buffalo, N.Y.	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario	.....	1,000,000 "
Cleveland Elevator Company's Elevator, Cleveland, O.	.....	500,000 "
Erie R. Transfer & Clipping House, Chicago, Ill.	.....	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	.....	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	.....	500,000 "
Canada Atlantic Railway Elevator, Goteau Landing, Que.	.....	500,000 "
Northern Grain Co., Minneapolis, Ws.	1,350,000 "
Union Elevator, East St. Louis, Ill.	1,100,000 "
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ing been invited to send a representative to so important a convention, and there is no doubt that if one is sent he will prove himself a credit to his constituents, in fact, it would be a difficult matter to pick one from our number who wouldn't be.

"Your subscription for 1903 will be due on Jan. 1, and prompt remittance is urged. THE RAILWAY AND SHIPPING WORLD for Jan. will be supplied to all members, but after that month, in order to protect the funds of the Association, it will be sent to only such members as have paid their fees for 1903. The Editor of our official organ has requested me to state that he will at all times be glad to insert any letters or articles sent in by members, if considered by him to be of such a character as to interest its readers.

"Ticket agents eligible for membership who have neglected their opportunities are urged to do so no longer, but remit \$3 to the Secretary-Treasurer and become a useful member of a useful and profitable Association. There are many agents, but few members, hailing from the Maritime Provinces. To such unattached a special appeal is made to join the ranks, and so have reason for taking more than a latent interest in our visit in Oct."

Grain Elevator Notes.

It is proposed to erect a 75,000 bush. elevator at Hartney, Man., on the farmers' co-operative plan, for next season's crop. There are now six elevators at Hartney.

The Montreal Harbor Commissioners have decided to obtain the electrical power for the new grain elevator from the Montreal Light, Heat and Power Co., if the Co. will agree to fix the same price for a term of five years.

The Ogilvie Flour Mills Co. has been granted a free site at Fort William, Ont., for a 500,000 bush. elevator and a flour mill, to have a capacity of 1,500 barrels a day. Construction will be commenced early in the spring.

The receipts of wheat at Port Arthur, Ont., for the navigation season of 1902 were 3,940,316.40 bush. at the Canadian Northern elevator, and 486,254 bush. at King's elevator, and the shipments were 3,495,955.20 bush. and 519,981.50 bush. respectively.

At the end of 1902 there were in operation in Western Canada grain elevators having a total capacity of 30,045,300 bush. divided as follows: East of Winnipeg, including Winnipeg, 8,433,000; west of Winnipeg, in Manitoba, 16,027,300; Northwest Territories, 5,585,000 bush.

The Underhill Farmers' Elevator Co. (Ltd.) has been incorporated under the Manitoba Companies' Act, with a capital of \$20,000 to erect a grain elevator at Underhill, Man. The provisional directors are: J. Coxworth, H. James, W. B. Muir, J. Barber, J. Gibson, J. Reid and A. Peasley, of the municipality of Cameron, Man.

The Chief Engineer of the Montreal Harbor Commission has prepared plans for a system of conveyors, permanent sheds and tracks along the wharves in connection with the new elevator. The plans have to be approved by the Department of Public Works as well as by the Commissioners. It is expected to have these works completed by Aug.

The C.P.R. reports that from Sept. 1 to the close of the season of navigation 15,490,424 bush. of wheat were received at its elevators at Fort William, Ont., and 14,768,912 shipped out, against 12,085,735 received and 12,008,235 shipped in 1901. The total wheat marketed at C.P.R. points west of Lake Superior was 22,945,863 bush., against 18,491,003 in 1901.

J. Y. Griffin & Co. (Ltd.) have been incorporated under the Dominion Companies' Act to carry on business as dealers in agricultural produce in Canada, and in connection with their business power has been given to erect grain elevators. The incorporators are F. M. Griffin, St. Thomas, Ont.; R. Robertson, Nelson, B.C.; D. Naismith, Vancouver, B.C., and H. E. Crawford and J. Y. Griffin, Winnipeg. The capital is fixed at \$500,000, and the head offices are to be in Winnipeg.

SHIPPING MATTERS.

Northern Navigation Co.'s Report.

The annual meeting of the Northern Navigation Co. of Ontario, was held at Collingwood, Ont., Jan. 27. The report for the year ended Dec. 31, 1902, shows that the paid-up capital stock was increased during the year from \$560,000 to \$840,000, to purchase the minority stock in the Northwest Transportation Co., \$147,000, and to pay for the new steamer Huronic, which was completed last spring and placed on the Sarnia-Lake Superior run. The N.N.Co. now owns the whole of the stock of the N.W.T. Co., \$300,000. There was expended on permanent improvements and charged to current expenses \$24,849.64. The cold wet weather which prevailed up to the latter part of July greatly lessened the earnings there would have been from passenger business had weather conditions been as in previous seasons. The want of elevator facilities also seriously affected the freight earnings, but, notwithstanding these unfavorable conditions, the earnings have been satisfactory.

ASSETS.	
Ten steamers.....	\$932,478 28
Buildings and plant.....	11,546 16
Merchandise and fuel.....	4,391 21
Insurance unexpired.....	6,277 77
Accounts receivable.....	25,799 83
Cash on hand.....	485 36
	\$980,978 61

LIABILITIES.	
Capital stock.....	\$840,000 00
Reserve account.....	90,000 00
Profit and loss.....	15,725 69
Bank of Toronto.....	29,602 39
Accounts payable.....	5,650 53
	\$980,978 61

PROFIT AND LOSS ACCOUNT.	
Balance at credit, 1901.....	\$ 12,356 11
Gross earnings of steamers.....	\$532,391 48
Total expenses.....	443,781 56
Net profit.....	88,519 92
Premium on 2,786 shares at 10%.....	\$ 27,860 00
Premium on sale of 14 shares.....	673 50
	28,533 50
	\$129,409 53

APPROPRIATIONS.	
Half-yearly dividend paid July 1, 1902, on 5,600 shares, at 5%.....	\$ 28,000 00
Half-yearly dividend paid Jan. 2, 1903, on 8,400 shares, at 5%.....	41,773 84
Directors' compensation and expenses.....	3,910 00
Transferred to reserve account.....	40,000 00
Balance at credit.....	15,725 69
	\$129,409 53

The board for the current year is as follows: President, J. J. Long; Secretary, T. Long; Treasurer, C. E. Stephens; other directors: E. B. Osler, H. B. Smith, C. Cameron, F. A. Lett, W. D. Matthews, W. Hendrie, W. J. Sheppard.

Lightships Being Built in Toronto.

The Polson Ironworks, Toronto, is building two steel lightships for the Department of Marine, one of which is to be stationed off Anticosti island in the Gulf of St. Lawrence, and the other at a point, not finally determined on, off the coast of Nova Scotia. These

two lightships form a part of the plans decided upon by Hon. Jas. Sutherland, during his tenure of office, for the improvement of the aids to navigation on the Atlantic coast and in the gulf. The two lightships are facsimiles in every respect and have the following dimensions: length, extreme, 123 ft. 6 in.; between perpendiculars, 112 ft.; breadth, 28 ft. 6 in.; depth, keel to bend amidships, 14 ft. 10½ in. The construction of the vessels is very heavy, far in excess of Lloyd's requirements; the workmanship is to be of the very highest class, and everything in connection with the hulls, machinery and equipment of the most substantial character suitable for the arduous service they will be called upon to perform. The hulls will be divided by water-tight bulkheads into five water-tight compartments. They will each have three decks, the main and spar decks being continuous and the lower deck extending from the stem to the coal bunker bulkhead forward, and from the sternpost to the engine bulkhead aft. The lower deck will be of steel; the main deck of steel covered with a 3 in. wood deck, and the spar deck of wood. They will each be provided with two hollow steel masts fitted with standing and running rigging for every kind of service on station, at sea or in harbor. The lights will consist of a cluster of three on each masthead top, adapted both for electricity and oil lamps. The accommodation for officers and crew will be located on the main deck; the dynamos and engines for the electric plant will be located on the main deck within the engine casing. They will be fitted with steam windlasses with two "wild cats" for 1½ in. chain and spring riding buffers. The fog signal will be a chime, operated by steam and the cut-off marked by a steam engine specially designed for this purpose. They will also be fitted with tanks having a capacity of 15,000 gallons of fresh water, as well as the necessary facilities for storing rain water. They will each be fitted with an inverted surface condensing single cylinder engine, with a stroke of 22 in., and a cylinder chamber 23 in. diameter, driving a right-handed four-bladed cast iron propeller of the solid type, 7 ft. 3 in. diameter. Steam will be furnished by two cylindrical straight tubular boilers, 9 ft. diameter by 16 ft. 7½ in. long, and designed for a working pressure of 100 lbs. to the square inch. The electrical plants are to consist of four marine sets known as M.P. 4.8.650 with 4½ by 4 double-cylinder marine engines to run on 80-lb. steam, non-condensing, or any other plant of equal capacity and quality. The vessels will each be wired for 80, 16 c.p. 100-volt lights and 8, 100 c.p. 100-volt lights at the masthead, four on each mast. The flashing device for the lights will have three discs revolving at the rate of two revolutions a minute. The specifications provide for the most rigid tests for materials throughout the hull, machinery and equipment of the vessels, which will cost about \$100,000 each. One vessel is to be delivered in Aug., and the other about three months later. They are being constructed under the supervision of W. E. Redway, naval architect for the Polson Iron Works.

Government Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 115. Dec. 9.—Nova Scotia—382. Strait of Northumberland, Wallace harbor, buoyage.

No. 116. Dec. 10.—British Columbia—383. Haro strait, Colburne passage, rocks. 384. Haro strait, north end of Sydney channel, rock.

No. 117. Dec. 11.—British Columbia—385. Trincomali channel, Victoria rock, buoy.

386. Strait of Georgia, Portier pass, Galiano island, bearing and heights of range lights. 387. Strait of Georgia, Portier pass, position of fairway buoy. 388. Strait of Georgia, approach to Baynes sound, Kelp bar, beacon destroyed, spar buoy placed.

No. 118. Dec. 11.—Quebec—389. River St. Lawrence, south shore, Matane, Bell buoy. 390. River St. Lawrence, north shore, Manicouagan shoal, whistling buoy. 391. Richelieu river, north of Halfway point, change in position and height of front range light.

No. 119. Dec. 17.—Ontario—392. Ottawa river, Lake des Chênes, Baskins wharf, improvement in range lights. 393. Georgian bay, west side, Surprise shoal, change in color of buoy.

No. 120. Dec. 19.—New Brunswick—394. Passamaquoddy bay, St. Andrews, beacon re-erected.

No. 121. Dec. 20.—Nova Scotia—395. Cape Breton, Lennox passage, Bourgeois inlet, light established.

No. 122. Dec. 20.—Ontario—396. Georgian bay, east coast, Point au Baril, new back range tower.

No. 123. Dec. 22.—New Brunswick—397. South coast, Bay of Fundy, St. John harbor, Partridge island, bell buoy damaged, bell buoy placed.

No. 124. Dec. 23.—Ontario—398. Lake Erie, between Point Pelee and Long Point, wreck of H. A. Barr no longer dangerous. 399. Georgian bay, west side, Flowerpot island, fog bell again in operation.

The U.S. hydrographic office has issued the following notices:

No. 50. Dec. 13.—Lake Superior—1958. Apostle islands, York island, corrected position of reported shoal.

No. 51. Dec. 20.—Lake Superior—2013. Portage lake ship canal, east breakwater west end beacon light, structure destroyed, light suspended.

No. 52. Dec. 27.—Lake Superior—2038. Apostle island group, shoal reported by str. Van Hise, additional information.

No. 1. Jan. 3.—Gulf of St. Lawrence—1. Gaspé Basin, harbor closed to navigation Dec. 12, 1902.

No. 2. Jan. 10.—Lake Superior—43. Keeweenaw bay, coal dock established on Duluth, South Shore and Atlantic Ry.

St. Lawrence and Chicago Steam Navigation Co.

The 12th annual report for 1902 states that the season of 1902 on the lakes was a fairly prosperous one. As mentioned in the previous annual report, it was decided to increase the capital stock to \$500,000, and during the year \$150,000 was issued and has been taken up by the shareholders and paid for in full. The directors having contracted for the construction of another steamer of a larger size than any previously constructed, have issued the remaining \$150,000 capital payable in full on Jan. 2, 1903. As there will be a further sum required to complete the above-mentioned steamer, it will be necessary to increase the capital stock again. Owing to the contractors for the steamer ordered a year ago failing to deliver her until after the close of navigation, 1902, although it was agreed that she should be delivered on June 1, 1902, serious loss has been occasioned to the Co., as practically only one-half of the capital has been working during the past year. Two dividends have been paid, one in July, 1902, of 16% out of the accumulated profits of past years, and one of 10% payable Jan. 2, 1903, and a balance of \$18,913.68 has been carried forward.

ASSETS.

Steamer Rosedale..... \$100,000 00
Steamer Algonquin..... 100,000 00

Steamer Tadenac (expended to date)..... 132,626 98
Steamer building at Collingwood (expended to date)..... 75,000 00
\$407,626 98

LIABILITIES.

Capital..... \$350,000 00
Balance due Dominion Bank..... 38,713 30
Balance of Profit carried forward..... 18,913 68
\$407,626 98

PROFIT AND LOSS ACCOUNT.

Balance brought forward Jan. 1, 1902..... \$22,753 52
Transferred from reserve fund..... 40,000 00
\$62,753 52
Steamships..... \$53,173 97
Interest..... 24,47 95
\$55,311 92
\$108,065 44

Insurance..... \$6,570 23
Telegraphing and postage..... 257 27
Expense..... 1,639 31
Salaries..... 5,000 00
Taxes..... 322 95
Supplemental charter..... 362 00
\$14,151 76
Dividend, 16%, paid July 2, 1902..... \$50,000 00
Dividend 10%, payable Jan. 2, 1903..... 35,000 00
85,000 00
Balance carried forward..... 18,913 68
\$118,065 44

The annual meeting was held in Toronto Jan. 14. Following are the officers for the current year: President, W. D. Matthews; Managing Director, J. H. G. Hagarty; Superintendent, S. Crangle; other directors, E. B. Osler, C. S. Gzowski and G. F. Hagarty.

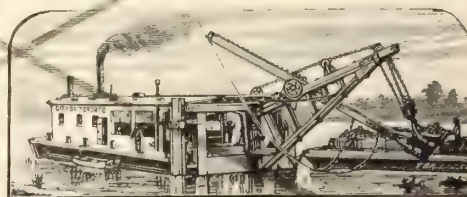
M. BEATTY & SONS

WELLAND, ONTARIO.

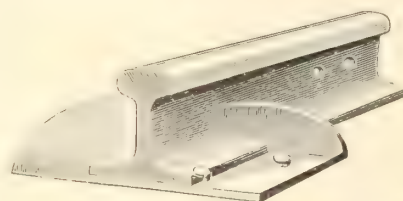
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OF VARIOUS STYLES AND SIZES TO SUIT ANY WORK

Submarine Rock Drilling Machinery, Hoisting Engines, Suspension Cableways, Horse-Power Hoisters, Gang Stone Saws, Centrifugal Pumps for Water, Sand and Gold Mining, and other Contractors' Plant.



Combined Tie Plate, Rail Brace and Rail Support.



PATENTED

Canada - - - 74062. December 10th, 1901.
United States - 690235. December 31st, 1901.
Great Britain - 22735. November 11th, 1901.
Germany - - - 164694. November 13th, 1901.
Belgium - - - 159783. November 30th, 1901.

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WIRE ROPE, "ACME" BRAND.



Extra tensile strength for heavy work. Should only be used on special large wheels and drums.

THE B. GREENING WIRE CO., Limited,
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Keep Studying

Northern Navigation Co.'s Commission.

The Northern Navigation Co., of Ontario, has issued a circular quoting the resolution adopted by the trunk lines' associations as follows: "Resolved, that it is the sense of this Association that its members should not continue ticket arrangements or representatives from lake lines which persist in paying commissions to ticket agents contrary to our recognized policy." The N.N. Co. goes on to say: "You will readily see the position we are placed in, and although it is contrary to our wishes or past policy, we do not feel that we could antagonize the railways represented by the Central and Western Trunk Lines Associations. We therefore regret that it will be impossible for us to pay you the commission on your past season's sales. If we are to be in a position to act otherwise next season we will be pleased to notify you."

The circular, which was dated Dec. 15, 1902, has caused a great deal of disappointment among the agents who received it. The N.N. Co. did not give notice at the commencement of last season that it intended to cease paying commissions; in fact, in some cases agents were told by its officers that commissions would be paid, and they naturally feel that they have not been fairly dealt with after handling the season's business in the expectation that they would be treated as in previous years. There is no doubt that the N.N. Co.'s management has made a mistake in its method of dealing with this matter, and has alienated many agents who have been its good friends for years. Of course any company has a perfect right to cease paying commissions, irrespective of whether it is good business to do so or not, but notice of such intention should have been given at the commencement of the season, and not postponed until the year's business was closed, and the agents were expecting their annual cheques as usual. A notice of the cancellation of commissions made retroactive for a whole season is a decided novelty in passenger traffic matters, and indicates that the business is handled in an amateur way.

Maritime Provinces and Newfoundland.

The Dominion line steamers running between European ports and Boston, Mass., now call at Halifax, N.S.

The Nova Scotia Steel Co. has chartered a fleet of 17 steamers for the coal and iron ore trade for the season of 1903.

The str. Nerid, of Yarmouth, has been purchased by H. E. Eldridge, to run between Sandy Cove and Weymouth, N.S.

Navigation on the Miramichi river was maintained between Chatham and Douglastown, N.B., from Mar. 28 to Dec. 3, 1902.

The Cumberland Coal and Ry. Co. has chartered the str. Hilda, 1,600 tons, to carry coal from Parrsboro, N.S., to Portland, Me.

Recent launches in Nova Scotia include a 350 ton schooner at Maitland, and a schooner for the packet trade between Mahone Bay and Halifax.

The I.C.R. is having constructed at Carleton, N.B., a barge for transferring cattle from the ballast wharf sheds to the ocean steamers at Sand Point.

The Halifax and Yarmouth Ry. Co., is reported to be considering the advisability of putting a steamer on the route from Barrington to Halifax.

Capt. Macomber, formerly master of the Douglas H. Thomas for the Dominion Coal Co., and latterly in the service of the Department of Marine, died at Sydney, N.S., Jan. 4.

Thirteen vessels, having a tonnage of 968 tons, were added to the list of vessels regis-

tered in P.E.I. in 1902, the number on the list on Dec. 31 being 16 steamers of 1,571 tons and 143 sailing vessels of 11,893 tons.

The str. Lady Laurier, built at Paisley for the Dominion Government, sailed for Halifax Dec. 24, but had to return to Glasgow a week later, having received some damage owing to having met very severe weather.

The wrecked str. Jacques Cartier, belonging to the Inland Navigation Co. of Charlottetown, P.E.I., has been sold; the hull, engine and boilers for \$250, the condenser for \$500, the deck pump, boats, etc., bringing \$450; a total of \$1,200.

The Department of Marine has decided to place a diaphone at Cape Race, Nfld., in place of the present foghorn. The diaphone is driven by compressed air and emits a more powerful and penetrating sound than the pneumatic syren now in use.

Sixty steamers, having a tonnage of 4,439 tons, and 374 sailing vessels, having a tonnage of 15,006 tons, were on the registry books at Halifax, N.S., on Dec. 31, 1902. At Sydney, N.S., 97 vessels, having a tonnage of 6,622 tons, were on the register at the same date.

The Tidal Survey Branch of the Department of Marine has issued tide tables for Halifax, N.S., St. John, N.B., Quebec and Father Point, Que., for 1903, with tidal differences for Nova Scotia, the Bay of Fundy, the Gulf and River St. Lawrence, and information on the currents.

The new steamship service between St. John and Halifax, calling at Yarmouth and other south shore ports in Nova Scotia, for which W. Thomson & Co., St. John, N.B., have the contract, will be opened with the str. Brunswick, pending the building of a new steamer.

Press reports state that the Mabou and Gulf Ry. Co. proposes operating a line of passenger and freight steamers from Mabou to Prince Edward Island, and connecting with the N.S. mainland at Pictou; and a steamer on the Bras d'Or lakes between Sydney and Whycocomagh.

The Dominion Government str. Stanley has been placed on the route between Summerside, P.E.I., and Cape Tormentine, N.B., again this winter, and is reported to be making irregular trips between the two points. The Minto is running between Georgetown, P.E.I., and Pictou, N.S.

The Star Line Steamship Co. has declared a dividend of 7% for 1902, and elected the following officers and directors for 1903: President, J. Manchester; Vice-President, T. P. Taylor; other directors, C. C. Taylor, A. H. Harrington, F. A. Baird; Manager and Secretary-Treasurer, R. S. Orchard.

There is under construction at Carleton, N.B., the hull of a steamer for the Springfield Steamship Co., and a \$7,000 steam yacht. The dimensions of the former are: length 140 ft., breadth 25 ft., and a draught of 2½ ft. She will be fitted with a stern wheel and is to be named the Beatrice E. Waring.

The Tidal Survey Branch of the Department of Marine has issued tide tables for Charlottetown, P.E.I., Pictou, and St. Paul island, N.S., for 1903, with tidal differences for Northumberland strait, and for the open Gulf shore, from Miramichi along the north coast of Prince Edward Island, and for Cabot strait.

The Queen Steamship Co. (Ltd.) has been incorporated under the New Brunswick Companies' Act with a capital of \$15,000 to purchase the str. Queen, of Montreal, and carry on a general navigation business on the St. John river. H. A. McKeown, W. G. Dunlop,

S. J. Thorne, B. Van Wart and H. G. Harrison, St. John, are the provisional directors.

The Pontiac Steamship Co. (Ltd.) has been incorporated under the Dominion Companies Act with a capital of \$120,000, to carry on a general navigation business between Canadian, British or foreign ports. The provisional directors are: J. W. Carmichael, J. C. MacGregor, J. H. Sinclair, R. Meikle, and Miss C. E. Carmichael, of New Glasgow, N.S., where the offices of the Co. will be.

One of the captains of the Elder Dempster line recently stated that the light at Belle Isle, Nfld., was not properly sectorled. Col. Anderson, Chief Engineer of the Department of Marine, says he checked it last summer and it was approximately correct. A new quick flashlight is to be placed on the north end of Belle Isle, and the present light on the south end will be changed to an occulting one.

Province of Quebec Shipping.

The Montreal Harbor Commissioners have decided to spend \$6,000 in rebuilding their tug St. Peter.

During the season of navigation of 1902 over 17,000,000 bush. of grain passed through the Soulages canal, in addition to 315,000 tons of general freight.

The new locks of the Lachine canal will be 270 ft. long, 45 ft. wide, and have a depth of water of 14 ft. on the sills. Coulson, Quinlan and Robertson, contractors, Montreal, have the contract.

The Ottawa Forwarding Co. has under construction at Montreal a freight steamer, to replace the Harry Bate on the Montreal-Ottawa run. She will be 100 ft. in length, 25 ft. in breadth, and have a carrying capacity of 300 tons.

J. Kennedy, Chief Engineer of the Montreal Harbor Commission, P. W. St. George, and an engineer from the Department of Public Works have been appointed to look into the question of the construction of a dry dock at Montreal, and to report.

Two range lighthouses have been erected on Ile l'Aigle, in connection with the improved ship channel in Varennes traverse; and changes in the buoyage in Ile Ste. Therese channel, and Ile aux Vaches traverse are to be made for the opening of navigation.

The Richelieu and Ontario Navigation Co. has purchased the str. Virginia, to run in conjunction with the Caroline on the Quebec-Saguenay route. The Virginia is a comparatively new vessel, and has been engaged in the service between Baltimore and Old Port Comfort, Va.

The Montreal Harbor Commissioners have been considering plans, submitted to them by the Chief Engineer, for the construction of sheds on the wharves, and other harbor improvements. The plans will be referred to the Department of Public Works before contracts are let.

Capt. S. Filgate, 82 years of age, a resident of Montreal, has been actively engaged in river navigation since 1852. He ran the ferry steamer Champlain between Lachine and Caughnawaga in 1852, and subsequently built the Aurora, Beauharnois, Star, Lotbiniere and Filgate.

Commander Spain, R.N.R., reports, as the result of his investigation, that the damage to the Iberian and other vessels in the St. Lawrence during 1902 was due to the inexperience or carelessness on the part of captains, officers or pilots. Copies of the findings and evidence in each case have been forwarded to the British Board of Trade.

The port of Montreal's total revenue for

1902 was \$280,172 against \$234,908 for 1901. The number of vessels from inland ports arriving was 9,358 carrying 1,857,668 tons against 8,434 vessels carrying 1,680,182 tons in 1901; and of sea-going vessels there were entered 728 with a tonnage of 1,530,023 tons, against 707 vessels with a tonnage of 1,438,081 in 1901.

Following are particulars of the ten vessels being built for the Great Lakes and St. Lawrence Transportation Co., to be operated between Duluth, Minn., and Quebec; length, over all, 255 ft.; keel, 241 ft.; breadth, 41 ft.; depth 18 ft.; to carry 2,200 tons on a 14 ft. draught. Six will be fitted with triple expansion engines, 15, 25 and 42 in. diameter by

30 in. stroke, to which steam will be supplied by two Scotch boilers, 11 ft. by 11 ft., tested to a pressure of 170 lbs. to the square inch; the other four will be fitted with triple expansion engines 14, 25 and 42 in. diameter, by 30 in. stroke, to which steam will be supplied by water tube boilers at 225 lbs. a square inch. The value of each steamer is placed at \$150,000. Three of the steamers are being built at Chicago, three at Detroit, two at Superior and two at Buffalo. Delivery is to be made in the spring, when the steamers will be engaged in carrying grain to Quebec, and will have pulpwood from the Co.'s mills at Metapedia, as return cargos. — Marine Review.

Ontario and the Great Lakes.

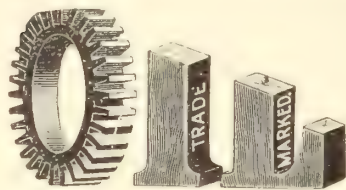
The Collingwood dry dock is being extended to 500 ft. in length.

The Northern Navigation Co. of Ontario declared a dividend of 5% for the half-year ended Dec. 31.

Capt. R. Cooney has been appointed to take charge of the Hamilton Steamboat Co.'s str. Macassa for the season of 1903.

It was reported from Port Arthur Jan. 1 that the harbor was free from ice, and that navigation with eastern points was quite possible.

The St. Lawrence and Chicago Transportation Co.'s str. Rosedale and Algonquin,



For Steamboats AND RAILWAYS

Vacuum Oils Reduce Friction, thus saving Coal and preserving Machinery.

VACUUM 600 W. CYLINDER
VACUUM No. 1 MARINE ENGINE (better than Lard)
ELDORADO ENGINE
RENOWN ENGINE
ARCTIC CUP GREASE
MINERAL SEAL OIL

300 Fire Test, for Illuminating Purposes

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Our stock is now replete with the latest designs, from inexpensive productions to the most luxurious and costly.

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Fur Show Rooms open at all seasons.

Catalogue and Price List sent on application.

Holt, Renfrew & Co.
TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1901, gives the following statistics for the year:

CROPS.

ACRES.	AVERAGE YIELD.	TOTAL.
Wheat.....2,011,835	25.1 bus.	50,502,085 bus.
Oats.....689,951	40.3 "	27,796,588 "
Barley.....191,009	34.2 "	6,536,155 "
Potatoes.....24,429	196 "	4,797,433 "

STOCK.

Number of stock in the Province, July 1, 1901:	
Horses.....142,080	Sheep.....22,960
Cattle.....263,168	Pigs.....94,680
Value of Dairy Products.....\$926,314	

18,375 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1899—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,600,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

For full information, maps, etc., **FREE**, address **HON. R. P. ROBLIN**, Minister of Agriculture and Immigration, Winnipeg, Manitoba. Or **JAMES HARTNEY**, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.



FARMING IN THE SOUTH.

The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free, Circulars as they are published from month to month. The Local Agent is asked to note Cheap Rates to all the North West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. December folder is a good one. Get it!

G. B. WYLLIE,

Canadian Passenger Agent,

210 ELLICOTT SQUARE, BUFFALO, N.Y.

NEW YORK CENTRAL

& HUDSON RIVER R. R.

THE FOUR-TRACK TRUNK LINE.

HAS ESTABLISHED A

CITY TICKET OFFICE,
RECREATION AND
INFORMATION BUREAU,

— AND —

CANADIAN PASSENGER
— AGENCY, —

AT

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W. P. F. CUMMINGS,

C.P.R. Offices,
WINNIPEG.

are being overhauled in their winter quarters at Owen Sound.

W. J. Stewart, hydrographic surveyor of the Department of Marine, Ottawa, is preparing a new edition of the Georgian Bay and North Channel Pilot.

The Algoma Navigation Co. is negotiating for the building of a steamer 190 ft. long and 34 ft. beam, with a carrying capacity of 700 tons, for its Georgian Bay trade.

The lighthouse supply str. Scout has been placed in the dry dock at Kingston, Ont., where she will be lengthened 25 ft., and a number of other improvements made.

The Central Canada Coal Co., of Brockville, has purchased the steam barge Samuel B. Marshall, of Buffalo, N.Y. She is classed A1½ and has a gross tonnage of 1,350 tons.

There were on order on Dec. 31, 1902, at Toronto, 1 cargo steamer, 2,300 tons, two tow-boats and two light ships, and at Collingwood two cargo steamers of 4,900 tons each.

The Grand Trunk Car Ferry Co. is having a steel ferry boat 315 ft. long and 54 ft. in breadth, built at Toledo, Ohio. We are advised that the G.T.R. is not interested in this ferry.

Press reports have been revived to the effect that a joint stock company is in course of formation in Hamilton to establish another line of steamers between Hamilton and Toronto.

The Montreal Transportation Co. expects to have one of its additional steamers delivered at Kingston on the opening of navigation, and the second one in July. One of these is to replace the lost Bannockburn.

The Hamilton and Fort William Navigation Co. has declared a dividend of 8% for the year, and has elected directors for 1903: President, W. Southam; A. B. Mackay, A. E. Carpenter, J. Milne, C. Doolittle, G. Hope and G. S. Lynch Staunton, K.C.

The Montreal Transportation Co. has purchased the schooner Augustus from the Calvin Co., of Kingston, Ont. She was built at Garden Island, Ont., in 1893, her dimensions being: length, 177.5 ft.; breadth, 39.6 ft.; depth, 15 ft.; register tonnage, 802 tons.

It has been reported that two-thirds of the Canadian vessels passing through the canals at Sault Ste. Marie use the U.S. in preference to the Canadian canal, on the ground that the channel to the upper entrance of the Canadian lock is not so advantageous as that to the U.S. one.

The str. A. J. Tymon, of Toronto, was ordered to be sold by the Admiralty Court to satisfy claims for wages preferred by Capt. McSherry and the crew. G. Gooderham has a mortgage on the steamer, of which Capt. McSherry is part owner. The sale was announced for Jan. 28.

Capt. Donnelly, Superintendent of the Canadian Lake and Ocean Navigation Co., says as the result of his experience with the turret type of vessel last season he is satisfied that it is the very best that could be built for the trade. The captains and crews of the four steamers returned to England for the winter.

The Hamilton Steamboat Co. elected the following officers at its annual meeting: President, W. Leggat; Vice-President, G. T. Tuckett; other directors, S. Jones, J. W. Lamoreaux, F. W. Fearman, H. B. Witton and T. Ramsay; General Manager, T. H. Bishop; Secretary-Treasurer, Miss A. Abrahams.

Thirty-four vessels were lost on the Great Lakes during 1902, with 140 lives, and representing a loss of \$703,000 on hulls and \$269,000 on cargoes to the underwriters. With the exception of the Bannockburn all the vessels lost were getting old, and some of them were doubtless not well equipped to meet very heavy weather.

Two U.S. vessels collided in Sandusky harbor, Ohio, and an action was entered and the Whitney, one of the vessels, was seized in Canadian waters and held until bail was given. Judge McDougall in the Admiralty Court at Toronto has decided that the plaintiff must deposit \$800 as security for the costs of the owners of the Whitney.

The Victoria Lumber Co. is having built at Toronto a 2,300-ton steel barge, her general dimensions being: length, over all, 260 ft.; breadth, 43 ft.; depth, 25 ft. She will be fitted with triple expansion engines, 17, 28 and 46 in. cylinders, by 32 in. stroke, to which steam will be supplied, at 176 lbs. pressure, by two Scotch boilers 11 ft. 6 in. by 12 ft.

Major T. W. Symons, U.S. engineer at Buffalo, N.Y., has received instructions from the Secretary of War to make a survey for a deep ship canal from the headquarters of the Niagara river to the lower river a distance of 5 miles. If this work is carried out the lake boats will be able to get into the lower river, which they cannot now do on account of the shallows and rapids.

Arguments have been heard and judgment reserved in the action brought by R. D. Perry against the Algoma Central Ry. Co., in reference to the operation of a ferry between the Ontario and Michigan sides of the St. Mary river at Sault Ste. Marie. Mr. Perry operates his ferry under a lease from the Dominion Government granted in 1897, and the Algoma Central Ry. operates its ferry under the authority of a Provincial Act of Parliament.

The Toronto Globe of Dec. 25, 1852, had the following item relative to navigation on Lake Ontario: "We are glad to notice that the Chief Justice will make her trips backwards and forwards every day during the winter. This will be a very great convenience to our community. The City of Hamilton has been laid up, but the Queen of the West still retains her place between this city and Hamilton. The weather is mild and moist, and the ice has disappeared from the bay."

The Dominion Government proposes to construct a dam between Adams and Galops islands in the St. Lawrence, with a view of completing the channel between Prescott and the Galops rapids. As the U.S. boundary runs through the channel between the islands C. Schrieber, Deputy Minister of Railways and Canals, has been to Washington and explained the project to the authorities there. A U.S. engineer will make a report, and if this is favorable the work will be commenced this year.

The str. Norseman has been purchased by N. and A. Dyment from F. D. Gilchrist, Alpena, Mich., and will be added to the lumber carrying fleet on Georgian bay. The Norseman was built in 1864 at Port Huron, Mich., and was originally known as the Enterprise, and has the following dimensions: length, 172 ft.; breadth, 32 ft.; tonnage, gross, 660 tons; net 501 tons. She is fitted with simple compound engines, 20 and 50 in. cylinders by 30 in. stroke, to which steam is supplied by two Scotch boilers 12 by 9.

Two steamers which are being built at Collingwood are expected to be completed by June. One is for J. Playfair, of Midland, Ont., and the other for the St. Lawrence and Chicago Transportation Co. Their dimensions are: length, over all, 375 ft.; breadth, 48 ft.; depth, 28 ft.; cargo capacity 4,900 tons, on an 18 ft. draught; fitted with triple expansion engines, 20, 33, and 55 in. cylinders by 40 in. stroke, to which steam is supplied by two Scotch boilers 14 ft. by 12 ft., at a pressure of 180 lbs. to the square inch.

The Upper Ottawa Improvement Co. is having built at Toronto two tow-steamers

which will be taken in sections to the upper reaches of the river and put together there. They have the following dimensions: (1) length over all, 146 ft.; keel, 139 ft.; breadth, 26 ft.; depth, 8½ ft.; fitted with inclined compound engines 24 and 48 in. cylinders, by 60 in. stroke, and two locomotive boilers 5 ft. 4 in. by 23 ft. 4 in.; (2) length over all, 140 ft.; keel, 133 ft.; breadth, 24 ft.; depth, 8 ft.; fitted with inclined compound engines 20 and 38 in. cylinders, by 54 in. stroke, and two locomotive boilers 4 ft. 10 in. by 21 ft.

Recent press reports credited a Toronto shipbuilding and engineering company with the intention of establishing a big yard at Sandwich, Ont., at which the C.P.R. was to have built a large fleet of modern lake carriers, and where repairs for Canadian vessels could be made. A member of the Toronto firm in question declined to make any statement on the subject, but Sir Thos. Shaughnessy, President of the C.P.R., said it was a very large story built on a flimsy foundation, and an officer of the Co., connected with its shipping branch, said no order for new vessels of the kind indicated had been given.

F. H. Clergue has recently been making enquiries as to the use of acetylene gas in buoys for marine purposes, and Captain Folger, Superintendent of the New York lighthouse district, reports that so far buoys so equipped become defective after a few days or weeks of service. The Safety Car Heating and Lighting Co. says: "We recognize the value of the acetylene flame for use in reflectors or lenses, and have carried on a considerable number of experiments ourselves, and now have buoy lanterns burning at our laboratory in an effort to arrive at a suitable arrangement. The consumption of gas cannot be any less than with Pintsch light, although we believe that the light will be three or four times as effective if reliable."

The U.S. canal at Sault Ste. Marie was closed for the season Dec. 15, and the Canadian canal a week later. The traffic passing through the Canadian and the U.S. canals at Sault Ste. Marie, from the opening to the close of navigation, was 35,961,146 tons, against 28,403,065 tons in 1901. The following are the figures for the Canadian canal:

	1902.	1901.	Increase or Decrease.
April 5 to May 31....	532,188	151,679	380,509+
June	1,118,564	1,235,955	116,491-
July.....	523,936	276,624	247,312+
Aug.....	639,858	295,175	344,683+
Sept.....	560,031	201,229	358,802+
Oct.....	604,713	354,383	250,330+
Nov.....	635,314	277,144	358,170+
Dec.....	113,747	29,738	84,009+
	4,728,351	2,821,027	1,907,324+

Manitoba and Northwest Territories.

The Manitoba Exploration Co. has been incorporated under the Manitoba Companies' Act to own steam and other ships, and carry on a general navigation business in addition to a number of other purposes. E. F. Hutchings, G. A. Glines, A. McLaren, W. G. Scott, J. Robertson, J. G. Cleghorn and J. H. Leech of Winnipeg, are the provisional directors.

Kelly Bros. are hauling large quantities of material to St. Andrew's rapids, near Winnipeg, for the construction of the lock. They expect to have 2,000 cubic yards of stone and about 6,000 cubic yards of sand on the ground ready to start building in the spring. The work has been considerably delayed during the past year or two by the large quantity of water in the river.

The Canadian Northern Ry. proposes establishing a harbor on Lake Manitoba, at Oak Point, Man., the terminal point of its branch known as the Hudson's Bay line. Large quan-

ties of stone are being taken out at Lake Frances, for use in the construction of a pier and other harbor works at Oak Point. The C.N.R. opened a line to Delta on the southern shore of the lake, but it is stated that as a port it has not been a success, and will be abandoned.

B. C. and Pacific Coast Shipping.

The United Canneries Co. has ordered 15 fishing boats to be built in Vancouver and to be ready for the fishing season of 1903.

The Vancouver Canning and Packing Co. has had a steamer, the Surprise, built at False Creek, Vancouver. Her engines are 85 h.p. and she has a capacity of 100 tons.

The Packers Steamship Co. (Ltd.) has been incorporated under the B.C. Companies' Act with a capital of \$25,000 for the purpose of owning steam and other vessels, as well as for other purposes.

The C.P.R. steamer Athenian has recently been fitted with a new boiler, 10 ft. 6 in. in diameter by 10 ft. in length, built in Vancouver, B.C. The plates were purchased in England under Lloyd's supervision and shipped to Vancouver.

Two tugboats named Bahadda and Wyadda, have been launched at Seattle, Wash., for the Admiralty Tugboat Co., an affiliation of the Puget Sound Tugboat Co. The steamers are 90 ft. long, 19 ft. beam, 11 ft. 6 in. depth of hold, and are fitted with Scotch boilers and compound engines of 390 h.p.

The Tidal Survey Branch of the Department of Marine has issued tide tables for Victoria, B.C., and Sand Heads, Strait of Georgia, for 1903, with tidal differences for Esquimalt, Vancouver, New Westminster and Baynes Sound, and the current in first narrows, Burrard Inlet.

The Alaska Packers' Association of San Francisco has been awarded \$25,000 dam-

ages for the stranding of the ship Santa Clara, on Trail Island in Dec. 1901, due to the negligence of the crew of the tug Mystery, of Victoria, B.C. The verdict was recorded against the tug and her former owner, S. A. Spencer.

The C.P.R. str. Princess Victoria was expected to be completed in Jan. and to leave the builders' yard, Newcastle-on-Tyne, Eng., by the end of the month for Victoria, B.C. She is expected to make the trip in 60 days. Upon reaching Victoria, the upper works will be put in position, and the decorative work, both inside and out, completed.

The most recent stretch of navigation to be opened in the Yukon territory, during the season of 1902, was to lake Arkell, 95 miles up the Tahkma river, a tortuous stream running southward from the Yukon river, some distance below Whitehorse. The Joseph Clossett made two round trips before navigation closed.

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The demand for Mica Covering is rapidly increasing, and this purely Canadian product is now entering successfully the markets of the World.

It was lately awarded the only Gold Medal in its section at the Pan-American Exposition, and was a prize winner at Paris.

The Mica Covering is largely used by Railways in Canada, Great Britain and India, also by the British Admiralty.

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Railway and Tramway Equipment.

New and Second-hand Rails

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Old Material Bought and Sold.

THE PLACE VIGER MONTREAL.

A beautiful new hotel just built by the Canadian Pacific Ry., in connection with their new passenger station. The building occupies an entire block and the style of architecture is that of the Chateau period of the French Renaissance. The hotel faces the Viger Gardens, and is thoroughly up-to-date in all its appointments. American tourists will find the Place Viger a most delightful hotel home.

RATES: \$3 UPWARDS.

Special arrangements with large parties and those making prolonged stays. For further information address, Manager, Place Viger Hotel, Montreal.

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Capital authorized - - - \$4,000,000
Capital paid up - - - 2,923,866
Rest - - - 2,485,288

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HEAD OFFICE, TORONTO.

D. R. WILKIE - - General Manager.
E. HAY - - - Asst. General Manager.
W. MOFFATT - - Chief Inspector.

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Capital of Canada
F. X. ST. JACQUES - - - Proprietor

The necessity of increased drydock accommodation on the B.C. coast is becoming apparent with the increasing number and size of vessels frequenting the ports. The Esquimalt dock is barely large enough for some of the warships on the Pacific station, and too small for some of the merchant vessels. It is reported that the Imperial Government is in favor of arranging with the Dominion Government for the enlargement of the dock, or for building another in the naval yard.

The Upper Columbia Navigation and Tramway Co. will improve its steamers North Star and Duchess during the winter. The North Star is to be remodeled after the style of the C. P. R. steamers on Kootenay lake, and provided with accommodation for 150 passengers; and the Duchess is to be rebuilt and enlarged. Capt. Armstrong, of Golden, B.C., is largely interested in the Co., which has entered into an agreement with the C.P.R. to run its steamers next season to fit in with the arrival of C.P.R. trains at Golden.

Press reports are current as to the time when the C.P.R. will start a steamship line between Canadian ports and Europe. Sir Thos. Shaughnessy says: "When any announcement is made it will come from the C.P.R. direct."

Among the Express Companies.

The Dominion Ex. Co.'s route on the stage route between St. Basil, N.B., and St. David, Me., has been closed for the winter.

H. L. Meyer, heretofore tariff clerk of the Dominion Ex. Co., has been appointed Superintendent of Tariffs, office at Toronto.

Scott Griffin has been appointed Superintendent, and W. C. Muir, Auditor, of the Canadian Northern Express Co. Offices at Winnipeg.

The position of Superintendent of the Alaska Pacific Ex. Co. at Seattle, Wash., formerly held by D. C. Jackson, has been abolished.

The B.C. Express Co. is running an extra stage on Fridays from Ashcroft to 150-Mile House, B.C., in addition to the usual weekly stage carrying the mail.

W. Aitchison, cashier of the Dominion Ex. Co. at London, Ont., has been appointed agent at Sault Ste. Marie, Ont., being succeeded by W. A. Gurney.

J. Anderson, an employe of the Dominion Ex. Co. at Portage la Prairie, Man., left recently, and a shortage of \$700 is alleged to have subsequently been discovered in his accounts.

The Canadian Northern Ex. Co. has extended its service over the Neepawa branch of the Canadian Northern Ry., and has opened offices at Mayfield, Mekiwin, Humberston, Hallboro, Glendale and Neepawa.

Robert Hally, a Toronto bank clerk, recently obtained \$200 from the Dominion Ex. Co. by means of a cheque which he had marked accepted with the bank stamp. He was subsequently arrested and convicted.

The Great Northern Ex. Co. has extended its service over the Great Falls and Canada Ry., which has been bought by the Great Northern Ry., and has opened offices at Collins, Conrad and Sweet Grass, Mont.

The Great Northern Ex. Co. has extended its service over the section of the Vancouver, Victoria and Eastern Ry., recently opened, and has opened an office at Grand Forks, B.C., common with the Dominion Ex. Co.

The Great Northern Ex. Co. has placed its service on the Crow's Nest Southern Ry.

from Gateway, on the International boundary, to Morrissey Creek, B.C., and has opened offices at Elko, Swinton and Morrissey Jct., B.C.

Alaska Pacific Ex. Co.'s agents have been authorized to cash the money orders of the Northern Pacific, Great Northern, Wells, Fargo & Co., Pacific, Dominion, Western, American, United States, National, Adams, and Southern express companies.

Telegraph and Cable Matters.

Scott Griffin has been appointed Superintendent, and W. C. Muir, Auditor, of the Canadian Northern Telegraph Co. Offices at Winnipeg.

The Pacific Cable Board is reported to have made an offer to purchase Fanning island, the mid-ocean landing place of the all-British trans-Pacific cable.

A. McKay, of St. John's, Nfld., who opened the first telegraph office in Liverpool, N.S., in 1851, sent New Year's greetings to the present operator in the office.

The Premier of Newfoundland has expressed a hope that when the charter of the Anglo-American Telegraph and Cable Co. expires in April, 1904, Marconi will establish a wireless station in that colony.

A London, Eng., press report states that owing to the successful establishment of wireless telegraphy between Canada and Great Britain the projected cable, under government control, will not be further considered.

The Pacific Commercial Cable Co.'s cable from San Francisco to Honolulu was opened for public service Jan. 5. The rate from Toronto to Honolulu is 62c. a word. The line is to be extended from Honolulu to Manila, and thence to Shanghai.

The Government telegraph line from Alberni to Clayoquot, on Vancouver island, has been completed. The extension of the line to Clayoquot necessitated laying a cable from the Alberni canal across Barkley sound; and across Clayoquot sound to Stubbs island. The cable was laid by the Government str. Otter.

The C.P.R. telegraph department is stringing a new copper wire between Little Current and Port Arthur, Ont., and it is reported that it will be continued across the continent to the Pacific coast. Several car loads of cross arms have been sent easterly from Vancouver to be distributed along the line to Winnipeg. J. Wilson, Superintendent C.P.R. telegraphs at Vancouver, the Vancouver World says, has confirmed this statement.

In consequence of the numerous interruptions of the telegraph line from Ashcroft, B.C., to Dawson, Yukon, it has been decided to substitute an insulated wire carried along the ground for the overhead wires in a number of places. The section of the line where this cable will be laid is between Telegraph Creek and Tagish, about 400 miles, a wild mountainous country, in which all the interruptions have taken place. An appropriation for this purpose will probably be asked next success of Parliament.

Wireless Telegraphy in Canada.

The Marconi Wireless Telegraph Co. of Toronto (Ltd.) has been incorporated under the Ontario Companies Act, with a capital of \$5,000,000 to acquire the patent rights in the Marconi system of wireless telegraphy and any future inventions along the same lines, and to invest in the stocks and bonds of any similar corporation. The incorporators are W. Barwick, H. C. Osborne, J. Payne, of Toronto; J. N. Greenshields, of Montreal, and W. R. Green, of New York. This company

apparently does not propose to be an operating company, and J. N. Greenshields states that the charter was first obtained in Ontario because the procedure there was more expeditious. Notices have been issued that application will be made next session of the Dominion Parliament for an act incorporating the Marconi Wireless Telegraph Co. of Canada (Ltd.) to carry on a business of telegraphic communication by means of wireless or other system of telegraphy in Canada and between Canada and the U.S., Europe, or elsewhere; with power to enter into agreements with the Dominion and Provincial Governments and municipalities for the establishment of local systems. The organization of the Co. has been completed as follows: President, Col. F. C. Henshaw; Vice-President, G. Marconi; Secretary, B. Shepard, other directors: A. A. Allan, W. R. Green, of New York, and J. D. Oppe, representing the English Marconi Company. J. D. Oppe will be General Manager, with headquarters in Montreal. The Co. acquires all the rights for Canada and Newfoundland, including the station at Glace Bay and the benefit of the contract entered into with the Canadian Government. The Co. has engineers in the field locating sites for stations, and it is expected that stations will be located at Mount Royal, Montreal, and at Stony Mountain, Man. Negotiations are pending with the Canadian Government for an annual subsidy for the maintenance of a patrol system on the St. Lawrence river and gulf and the Straits of Belle Isle. A factory for the manufacture of the apparatus will probably be established at either Montreal or Toronto.

The installation of the wireless telegraph station at Glace Bay, N.S., has been completed and communication has been inaugurated with the British station at Poldhu, Cornwall, Eng. The announcement was made Dec. 21, when Signor Marconi sent congratulatory messages from the Governor-General to the King, but prior messages had been sent, among them being one from Dr. Parkin, of Toronto, to the London Times; and on Jan. 7 several messages were sent during a blizzard and a thunderstorm. At a complimentary dinner in Sydney, N.S., Dec. 30, Signor Marconi, replying to the toast of his health, expressed his gratitude to the Governments of Canada and Italy for the assistance given him in perfecting his invention. Wireless telegraphy would prove a means of reducing the cost of communication between the new and the old worlds. The Co. was now under a contract to transmit messages at the rate of 10c. a word, but he would not be surprised to see the cost brought down in time to 1c. a word. Cablegrams at first cost £4 a word, but the rate was now 25c. a word. The Marquis Solari, who it was claimed was the original inventor of the special apparatus used by Marconi, was present at Glace Bay during the tests as a representative of the Italian Government. Signor Marconi has a contract to establish a wireless station at Cape Cod, Mass., and went there to instal it Jan. 13. A station has already been established at Willflett, Mass., 600 miles further from Poldhu than Glace Bay, and messages have been successfully exchanged.

Montreal Telegraph Co.'s Meeting.

The 56th annual meeting was held in Montreal Jan. 8. The balance sheet for the year ended Dec. 31, 1902, was as follows:

ASSETS.	
Telegraph lines in Canada and the U.S.	\$1,625,890.00
Telegraph cables in Canada and the U.S.	33,487.39
Telegraph offices and equipment of offices in Canada and the U.S.	212,500.00
Real estate in Montreal, Ottawa, Quebec and Toronto.	279,946.46
	\$2,151,823.85

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Cost to Join the I.O.F.

(For \$1,000 Mortuary Benefit.)

Initiation fee (minimum).....	\$1 00
Certificate fee.....	1 00
Registration fee.....	1 00
Medical Examination fee.....	1 50

Total minimum cost.....\$4 50

(For more than \$1,000 Mort. Benefit.)

Cost to take \$2,000 Mort. Benefit..	\$6 00
" " \$3,000 " " "	7 00
" " \$4,000 " " "	9 00
" " \$5,000 " " "	10 00

Sick benefits, when required, cost extra.

Benefits given by the I.O.F.

- 1.—The Mortuary Benefit of \$500, \$1,000, \$2,000, \$3,000, \$4,000 or \$5,000.
- 2.—A Total and Permanent Disability Benefit of one-half of face value of policy, with exemption from further payment of premiums or Court Dues.
- 3.—An Old Age Benefit consisting of exemption from payment of premiums and Court dues after age 70.
- 4.—An Old Age Disability Benefit of one-tenth of face value of policy payable yearly for ten years, on being declared totally and permanently disabled by infirmities of age after the seventieth birthday.
- 5.—An Old Age Pension payable during disability, which may be taken as a substitute for the Old Age Disability Benefit.
- 6.—Free Medical Attendance by Court Physician where not dispensed with by Court by-law; also trained nurses in certain cases.
- 7.—A Sick Benefit of \$3 to \$5 per week, subject to provisions of the Constitution and Laws of the Order; optional, and when taken costs extra.
- 8.—A Burial Benefit of \$100 at death of a Pensioner.
- 9.—A Funeral Benefit of \$50 at death of a member enrolled in Sick and Funeral Benefit Department.
- 10.—Social and Fraternal Privileges of the Court Room.

The Members, the Benefits, and the Surplus

At 31st December Each Year.

Year.	Total Membership.	Benefits Paid.	Total Surplus.	Surplus per Capita.	Death Rate per 1,000.
1881	1,019	\$ 1,300 00	\$ 4,568 55	\$ 4 48	4.50
1882	1,134	12,058 86	2,967 93	2 61	11.00
1883	2,210	9,493 68	10,857 65	4 91	4.73
1884	2,558	13,914 31	23,081 85	9 01	4.23
1885	3,642	26,576 99	29,802 42	8 18	7.76
1886	5,804	28,499 82	53,981 28	9 30	4.85
1887	7,811	59,014 67	81,384 41	10 44	5.78
1888	11,800	59,018 16	117,821 96	9 98	6.43
1889	17,319	116,787 82	188,130 36	10 84	5.85
1890	24,601	183,846 79	283,967 20	11 54	5.18
1891	32,303	261,436 21	408,798 20	12 65	6.40
1892	43,024	344,448 82	580,597 85	13 49	6.25
1893	54,484	392,745 93	858,857 89	15 76	5.47
1894	70,055	511,162 30	1,187,225 11	16 94	5.47
1895	86,521	685,000 48	1,560,733 46	18 03	5.67
1896	102,838	820,941 41	2,015,484 38	19 60	5.50
1897	124,685	992,225 60	2,558,832 78	20 52	5.56
1898	144,000	1,176,125 14	3,186,370 36	22 12	5.67
1899	163,610	1,430,200 33	3,778,543 58	23 09	6.30
1900	180,717	1,545,145 64	4,483,364 44	24 81	6.53

For Further Information Respecting this Great Fraternal Benefit Society, Apply to

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Or Any Officer or Member of the Order.

Cash accounts receivable, bonds and other securities, and real estate (not included in loan to G.N.W.).....	135,200.07
	\$2,287,023.92
LIABILITIES.	
Shareholders' capital.....	\$2,000,000.00
Excess in value of property operated by the G.N.W. T. Co., over shareholders' capital....	151,823.85
	\$2,151,823.85
Dividend payable Jan. 15, 1903.....	\$40,000.00
Unclaimed dividends, etc.,.....	1,033.65
Contingent fund.....	94,166.42
	135,200.00
	\$2,287,023.92

The directors' report said: "The dividend guaranteed by the W.U. Telegraph Co. under the terms of the agreement of Aug. 17, 1881, was distributed in the usual manner and on the fixed dates, with a payment of 10c. a share to shareholders of record on March 31 last. The Co.'s property in the foregoing statement, valued at \$2,151,823.85, is operated and maintained by the G.N.W. Telegraph Co. Its operation and maintenance is also guaranteed by the W.U. Telegraph Co. of New York, under an agreement with this company for 97 years, from July 1, 1881. The Co. continues free from debt or encumbrance of any kind."

The investment of the surplus funds made by the directors during the year was approved. The directors were re-elected as follows:—President, H. A. Allan; Vice-President, A. T. Paterson; other directors, J. Joseph, W. R. Miller and W. Wainwright.

In a discussion on the probable effect of the operation of the Marconi wireless system on the future of the telegraph, the President said that he had a personal interview with Signor Marconi in Montreal. The inventor was at that time very hopeful of results, particularly as regards the transmission of signals over the ocean, but was not very hopeful of land lines by the wireless system. Mr. Allan stated that he understood that the inventor intended to experiment with a land line in Canada. Personally he could give no opinion on the subject, but could only repeat the impressions which he had gathered from Signor Marconi himself. Mr. Allan stated that he had a very high opinion of the wireless telegraph so far as regards communication on the sea. At any rate, the Montreal Telegraph Co. would not be immediately affected, as it did not operate its system itself, and its lease to the W.U. Telegraph Co. would not expire for 75 years. Jesse Joseph remarked that the W.U. Co. did not, apparently, take the possibilities of competition with the wireless system seriously. Some time ago the stock was selling at 88, and now it was 92. A. T. Paterson said he did not consider any of them qualified to pass judgment upon Signor Marconi's invention and its possibilities, as the greatest electrical experts could not themselves come to a conclusion.

J. A. Dart, who constructed the extension of the Tillsonburg, Lake Erie and Pacific Ry. from Tillsonburg to Ingersoll, Ont., is suing the Company for \$3,140 for work done and materials supplied, and for an unstated sum for damages for alleged breach of contract.

General Telephone Matters.

The New Brunswick Telephone Co. has declared a quarterly dividend of $\frac{1}{4}$ per cent.

The Bell Telephone Co. has declared a dividend of 2% payable Jan. 15th to shareholders of record Dec. 31.

The Bell Telephone Co. has recently completed a copper line between Montreal and Quebec, the weight of which is 260 lbs. a mile.

The New Brunswick Telephone Co. has transferred its lines in St. John, N.B., to the new exchange on Chipman's Hill. The new installations are reported to be working satisfactorily.

The Cumberland Railway and Coal Co. has installed a telephone system connecting Springhill with all the stations on the line to Parrsboro', N.S., and to the different offices about the works.

The Bell Telephone Co. has been asked to extend its long distance line now being operated between Oakland and Gladstone, Man., so as to take in Longburn, which is a little off the route of the line.

Montreal city council proposes to secure power in the new charter it is desirous of obtaining, to erect poles in the Mount Royal park which can be utilized for telephone and electric light purposes.

A. J. Richards, Manager of the Bell Telephone Co. at Walkerton, Ont., has been appointed Manager at Berlin, Ont.; and has been succeeded at Walkerton by F. W. Dewar, hitherto Inspector at Stratford, Ont.

The Eastern Telephone Co., Sydney, N.S., has declared a dividend of 3% for the half year ended Nov. 30, 1902. The gross revenue amounted to \$12,720, an increase of \$4,510 over the corresponding half year of 1901.

The Victoria and Esquimalt Telephone Co. will apply next session of the B. C. Legislature for an act authorizing it to increase its capital and borrowing powers, and to enable it to acquire the property and franchises of any similar company.

The St. George Electric Co. will apply next session of the Quebec Legislature for an act of incorporation with power, among other things, to construct telephone lines from Great Falls, on the Chaudiere river, to Ste. Mary de Beauce; and from Great Falls to St. Come, and other points.

The American Telephone and Telegraph Co., in recently applying to have its stock listed in New York, gave a list of securities owned by it, including the Bell Telephone Co., of Canada, \$2,083,220 of stock, out of a total of \$5,395,320, and \$302,500 of bonds out of a total of \$2,000,000.

The Hamilton, Ont., city council has decided to memorialize the Dominion Government with a view to getting the latter to take control, and to operate all trunk telephone lines in the Dominion and also to ask for power to establish a municipal telephone service if found practicable.

The Red Falls Electric Co. will apply for an act of incorporation next session of the Quebec Legislature, with power among other things, to construct a telephone line from Lyster to Victoriaville, from Lyster to Broughton Mines, and to any point within a distance of 20 miles from Lysander Falls, Que.

The Westport and Digby Telephone Co.'s line is reported to have been sold to S. Gidney, of Mink Cove, N.S., who will put it in thorough repair. In connection with this purchase press reports state that the Dominion Government will be asked to place new cables between Petite and Grand Passages.

The Vernon and Nelson Telephone Co. will apply next session of the B. C. Legislature for an act authorizing it to divide its capital into ordinary and preferred shares; to increase its borrowing powers; to acquire the property of any similar company, and to enable it to extend its operations to all parts of the province.

The Great Northern Railway, U.S., is installing a telephone system along its lines in Minnesota and North Dakota, in place of the telegraph, for use in operating trains. The telegraph it still retained, but the management, it is said, look forward to displacing the telegraph operators and making the agent fill his place at the telephone.

The New Westminster and Burrard Inlet Telephone Co., and its employees, who struck Dec. 3, have reached an agreement under which an advance in wages is given, and the union is to be recognized in future. The non-union hands taken on to replace the strikers have been kept on, but all future employees are to be union hands.

Application will be made next session of the B. C. Legislature for an act incorporating a company to construct and operate telephone and telegraph lines through the mainland of B. C., to purchase or lease telephone or telegraph lines already constructed, and to amalgamate with any other similar company. D. G. Macdonnell, Vancouver, B.C., is the solicitor.

The earliest telephone line was erected on the outskirts of Brantford, Ont., by Prof. A. G. Bell, the inventor; the first commercial line was established at Hamilton, Ont., in Oct., 1877, by the Direct Telephone Co., and subsequently a number of private lines were constructed in Toronto and Montreal, which were the foundations of the exchanges in the different cities.

The Carman Electric Light and Power Co. has been incorporated under the Manitoba Companies' Act to operate "telephones, telegraphs, phonographs, and all electrical apparatus now known, or that may hereafter be invented." The incorporators are H. A. Aylwin, J. E. Campbell, J. M. Toombs, H. E. Robison, of Carman and E. S. Harrison, of Winnipeg; capital, \$50,000; head office, Carman.

The Ste. Apolline and St. Paul Telephone Co. is making application for incorporation under the Quebec Companies' Act, to construct a telephone line to connect the parishes of Ste. Apolline, Notre Dame du Rosaire, St. Paul de Montminy, St. Pierre, St. Francois, Berthier, St. Thomas, Cap Saint Ignace and the town of Montmagny. The capital is to be \$2,000 and the offices are to be at St. Paul de Montminy.

The Bell Telephone Co. is installing a telephone system throughout the King Edward hotel, Toronto, similar to that recently installed in the Windsor hotel, Montreal. From 400 to 450 rooms will be equipped, the instruments being of mahogany to harmonize with the trim and furnishings of the rooms. In addition to connecting with the house exchange, guests will be able to call up central and obtain such numbers as they desire.

The Port Arthur and Fort William, Ont., municipal telephone systems have been installed. In the former town the wires are carried on the electric light poles, and in the latter on special poles, the capacity in each town being for 600 lines. There is a trunk line connecting the two towns. The construction has been done by the towns under the supervision of electric light and power commissions. The switch boards are central energy lamp signal trunking board with double supervisory clearing-out signals, pilot lamps, etc., with a capacity of 280 subscribers' lines, and so arranged that they can be made into full multiple switch boards by adding other sections. The rates are \$1 a month for residence service and \$2 a month for business service. In Port Arthur on Dec. 31st, there were 104 business and 102 domestic telephones connected with the municipal system.

NOTICE is hereby given that the Canadian Northern Railway Company will apply to the Parliament of Canada, at its next session, for an Act authorizing the construction of the following lines of railway, namely:

(a) Commencing on the Company's line at or near Sperling, in Manitoba, thence in a generally southerly and easterly direction to a point at or near Morris, thence to a point on the Company's line between Ste. Anne and the Southern boundary of the Province of Manitoba;

(b) Commencing at a point on the Manitoba Railway Company's line at or near Hartney in Manitoba, thence in a generally northerly and westerly direction to a point at or near Regina;

(c) Commencing at a point on the Company's line at or near Swan River in Manitoba, thence along the Swan River Valley and in a generally westerly direction to a point on the Company's authorized line at or near the crossing by that line of the Saskatchewan River;

(d) Commencing at or near Battleford at a point on the Company's authorized line west of Battleford, thence in a generally westerly direction to a point on the Brazeau River in the District of Alberta;

(e) Commencing at a point on the Company's authorized line at or near Edmonton, thence in a generally northerly or north-easterly or north-westerly direction for 100 miles;

(f) Commencing at a point on the Company's authorized line or on the authorized line of the Edmonton, Yukon and Pacific Railway, west of Edmonton, thence in a generally westerly and southerly direction to a point at or near Rocky Mountain house in the District of Alberta;

(g) Commencing at a point on the authorized line of the Morden and North Western Railway between Neepawa and the westerly boundary of Manitoba, thence in a generally north-westerly direction to a point on the Company's authorized line between Grandview and Battleford.

Also extending the times for the construction and completion of the Company's lines of railway.

Z. A. LASH,

Solicitor for the Applicants.

Toronto, 14th January, 1903.

NOTICE.—The Calgary and Edmonton Railway Company will apply to the Parliament of Canada, at its next session, for an Act to authorize it to construct the following lines:

1. A branch line from Wetaskiwin on its main line easterly a distance of 100 miles;
2. A branch line from a point between Lacombe and Red Deer on its main line easterly 100 miles;
3. A line from Strathcona, the present terminus of its railway, to the Town of Edmonton by the most feasible route;
4. A branch line from some point at or near Edmonton in a northerly or north-westerly direction for a distance of 100 miles; with power to extend along such lines its telegraph and telephone lines and operate the same, together with such other powers and privileges as are usually given to railway companies and which may not be included in its charter.

KINGSMILL, HELLMUTH,
SAUNDERS & TORRANCE,

Solicitors for the Company.

Dated this 18th December, 1902.

NOTICE.—The Manitoba and North-Western Railway Company will apply to the Parliament of Canada at its next session, for authority to build a branch line from a point on its main line between Yorkton and Prince Albert westerly and north-westerly to a point on the North Saskatchewan River in the vicinity of Battleford; thence to a point at or near Wetaskiwin on the Calgary and Edmonton Railway; and also a branch line from a point at or near Churchbridge on the said main line southerly to a junction with the Pleasant Hills Branch of the Canadian Pacific Railway at or near Esterhazy.

By order of the Board,

H. CAMPBELL OSWALD,

Secretary.

MONTREAL, 8th December, 1902.

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(Continued from third page of Cover.)

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James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Steel

James Cooper.....Montreal.
B. J. Coghlin & Co.....Montreal.
Wm. Jessop & Sons.....Sheffield, Eng.
Rice Lewis & Son.....Toronto.

Steel Buildings

Dominion Bridge Co.....Montreal.

Steel Plate

Jas. W. Pyke & Co.....Montreal.

Steel Tires

B. J. Coghlin & Co.....Montreal.
Latrobe Steel Co.....Philadelphia, Pa.
Jas. W. Pyke & Co.....Montreal.

Structural Metal Work

Dominion Bridge Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Switches

Canada Switch and Spring Co.....Montreal.

Switch Lamps

The Hiram L. Piper Co.....Montreal.

Switch Ropes

The B. Greening Co.....Hamilton, Ont.

Switch Targets

Acton Burrows Co.....Toronto.

Telegraph and Telephone Office Signs

Acton Burrows Co.....Toronto.

Tie Plates

B. J. Coghlin & Co.....Montreal.

Tobacco and Cigars

The Hudson's Bay Company.....

Toilet Paper

The Hudson's Bay Company.....

Tools

Rice Lewis & Son.....Toronto.

Track Jacks

James Cooper.....Montreal.
Duff Manufacturing Co.....Allegheny, Pa.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

Track Tools

Canada Switch and Spring Co.....Montreal.
James Cooper.....Montreal.
Rice Lewis & Son.....Toronto.
W. H. C. Mussen & Co.....Montreal.

Tramway Equipment

James Cooper.....Montreal.
J. J. Gartshore.....Toronto.

Trucks (Electric Car)

Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Switch and Spring Co.....Montreal.

Trucks (Warehouse and Express)

Rice Lewis & Son.....Toronto.

Turntables

Dominion Bridge Co.....Montreal

Varnishes

McCaskey, Dougall & Co.....Montreal.

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Poison Iron Works.....Toronto.

Waste

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Rice Lewis & Son.....Toronto.
N. L. Piper Ry. Supply Co.....Toronto.
The Queen City Oil Co.....Toronto.

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James Cooper.....Montreal.
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Window Blinds

The Hudson's Bay Company.....

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The Wire and Cable Co.....Montreal.

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The Wire and Cable Co.....Montreal.

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Anchors Rice Lewis & Son. Toronto.	Dry Goods The Hudson's Bay Company.	Numbers Acton Burrows Co. Toronto.
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Babbitt Rice Lewis & Son. Toronto.	Electric Cranes Dominion Bridge Co. Montreal. W. H. C. Mussen & Co. Montreal.	Oils Galena-Signal Oil Co., Franklin, Pa., & Toronto. The Queen City Oil Company. Toronto.
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Bollers Polson Iron Works. Toronto.	Fencing Canadian Steel and Wire Co. Hamilton, Ont. Page Wire Fence Co. Walkerville, Ont.	Plushes The Hudson's Bay Company.
Boiler Tubes B. J. Coghlin & Co. Montreal. Jas. W. Pyke & Co. Montreal.	Flags Rice Lewis & Son. Toronto. The Hudson's Bay Company.	Porter E. L. Drewry. Winnipeg.
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Bolts Rice Lewis & Son. Toronto.	Foghorns Rice Lewis & Son. Toronto.	Printing The Hunter, Rose Co. Toronto. The Mail Job Printing Company. Toronto.
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Bridges Dominion Bridge Co. Montreal.	Hardware Rice Lewis & Son. Toronto. The Hudson's Bay Company.	Roof Trusses Dominion Bridge Co. Montreal.
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The Overloading of Locomotives.

By G. J. Bury, General Superintendent Lake Superior Division, C.P.R.

The average trainload in tons on our railways in 1889 was 179.35 and in 1901 it was 281.26, an increase of 101.91. This is due to three causes: reducing gradients, heavier locomotives and heavier loading of engines. These methods have increased the transportation capacity of the railways which adopted them and reduced expenses, but the third method was carried to such extremes that progressive railway managers have called a halt. The overloading of engines is a most expensive practice, occasioning more repairs than ordinarily needed and excessive fuel consumption, it lessens the capacity of a railway, is expensive in overtime and is indirectly the cause of train accidents.

The traffic of but few lines is constant, on the majority of roads fluctuating, by reason of the large freight movement following the garnering of the crops, etc. Officers closely identified with transportation recognize that the fewer additions that have to be made to the staff in moving a certain tonnage the better are the results. If freight trains average 15 miles an hour, train and enginemen in freight service can make 5,000 miles a month, while if the average be reduced to eight miles an hour (and I have known districts where the average was only four miles an hour), the men cannot stand more than 3,000 miles a month. Sixty crews under the former average will make 300,000 train miles in a month, while at an average of eight miles an hour it will take 40 more crews or 200 extra men to handle the same train mileage. Train and enginemen would be content to average 2,500 miles per month during slack season, or, for say eight or nine months in the year, provided they make 4,500 or 5,000 during the remainder. Therefore, when traffic becomes heavy the constant train staff could be looked to to handle double the freight traffic if the engines were loaded so that the former average speed be maintained. The more new men that have to be employed, and the longer hours train crews are kept on duty the greater the risk of train accident, as less care and watchfulness is displayed—and watchfulness and alertness has prevented many train wrecks. A man can only be expected to work a certain number of hours without rest, and when men are a long time on the road their duties are not as well performed as when fresh, resulting in extra fuel consumption, dilatory movements, etc.

Looking at the matter from a financial

standpoint, a consolidated engine hauls a train weighing 1,100 tons (tare and contents), over 118 miles in a district where there are several grades of 1% and taking into consideration time meeting trains, and letting faster trains pass, slowing up over grades, etc., averages eight miles an hour, the cost being as under :

Wages engineer and fireman	\$6	90
" " overtime.....	1	75
" conductor and brakemen	7	73
" " overtime	2	88



KENNET W. BLACKWELL,
President Canadian Society of Civil Engineers.

Oil and waste for locomotive.	30
Fuel (7 tons at \$3.20)	22 40
	<hr/>
	\$41 06

Or 32.3 cents per thousand ton miles.

The same train, if loaded with 1,000 tons (tare and contents) averages 15 miles an hour over the same district, and the cost is :

Wages engineer and fireman	\$6 90
" conductor and brakemen	7 73
Oil and waste for locomotives	30
Fuel (6 tons at \$3 20)	19 20

Or 28.8 cents per thousand ton miles.

There is less strain on the engine in hauling the lighter train and engine repairs less, but what the difference would amount to could only be ascertained by actual tests carried over some period.

The economical engine load is variable and is governed, not only by the number and length of grades, but by the density of traffic. On a road where traffic is very light at certain periods and dense at other periods, it might be good transportation to load engines heavily during light traffic, but it would be suicidal to load engines heavily when traffic was dense, even one train staggering and doubling over a district will demoralize the trains following and those met, resulting in overtime, extra consumption of fuel, and the risk of train accident which increases when train and enginemen are long hours on duty. In loading engines it has been the practice on some roads to so load them that they would haul a train at seven miles an hour over the steepest grade. If the steepest grade were of short length, no great delays might result, but if the steepest grade for instance, was to be eight miles in length, an engine, with a run for it, would take one hour to make the eight miles and the longest time it takes to make the distance between two stations is what limits the traffic. With trains loaded in this way, the traffic would be greatly restricted.

In a general way locomotives should be so loaded when traffic is dense that they may make an average speed over a district of 15 miles an hour, providing there are no unusual delays, and while theoretical tests are all very well for a basis on which to work, the only way to arrive at the engine load is by actual tests in practice. After ascertaining what an engine will do in actual practice the load should be shaded slightly from this. No fixed rule can be given for the loading of engines, but the conditions of each district at each period must be closely studied and the load be made such that the train can make reasonably good time. It may be taken as a general principle (providing engines are in good condition) that, where trains are a long time on the road, and the dispatching is not at fault, that the engines are too heavily loaded. A live superintendent will hustle over his district on freight trains, see on the ground where the trouble lies, and fix the load to meet the conditions without delay.

The foregoing paper was read at a recent meeting of the Canadian Railway Club.

The Algoma Central and Hudson Bay Ry. has adopted central standard instead of eastern standard time for operating its trains.

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NEXT ANNUAL MEETING of the Grand Council in
Kingston, Ont., Jan. 4, 1904.

Niagara Frontier Summer Rate Committee.

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SECRETARY, G. C. Wells, Montreal.

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Corrections for our Contemporaries.

"Superintendent J. C. Taylor, of the Great
Northern's Montana division, has been ap-
pointed Superintendent of the Northern Pa-
cific terminals at Winnipeg."—International
Railway Journal.

The Northern Pacific has no terminals in
Winnipeg, having withdrawn from Manitoba
in 1901, when its lines were leased to the
Manitoba Government and then re-leased to
the Canadian Northern Ry.

"The work of standardizing the Great
Falls & Canada, between Shelby Junction and
the Canadian line, having been completed, the

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Wire & Cable Co., Montreal	100

Canadian Pacific is able to run through trains
to Great Falls, Mont."—International Rail-
way Journal.

The Canadian Pacific does not run through
trains to Great Falls. The line from Leth-
bridge to the International boundary is op-
erated by the Alberta Ry. & Coal Co., and
from the boundary to Great Falls by the Great
Northern Ry., U.S.A.

Grand Trunk Pacific.—"It is stated that
this company intends to utilize the Midland
Division down to the main line of the Grand
Trunk either at Port Hope or Belleville, from
which there is a double track to Montreal.
This means that there will be no line through
the Ottawa Valley for some time to come.
According to the present route named, the
line will pass through Maniwaki, the terminus
of the Ottawa, Northern & Western, now
controlled by the Canadian Pacific, and which
is about 100 miles north of the capital."
—Railroad Gazette.

In view of the fact that the notice of appli-
cation for a charter states that power will be
asked to build from Gravenhurst or North
Bay, northwesterly or westerly, the line will
certainly not get anywhere near Maniwaki,
which is some 200 miles northeast of North
Bay.

The C.P.R. Club at Toronto Jct., Ont., has
a membership of over 200. The report for
1902 shows a considerable surplus.

Railway Cattle-Guards.

The commissioners appointed by the Minister of Railways to enquire into the question of cattle-guards for railways, F. W. Holt, C.E., and G. Robertson, of St. John, N.B., issued a circular to designers and inventors stating that a good guard to be accepted by the commissioners would be judged by the following qualities:—

1. It must be tried by actual experience on some railway, to discover its adaptability as a track appliance.

2. It must then fulfil, as near as possible, the following conditions:—

(a) It must not be of such form or construction as to cause the derailment of rolling stock of a railway, or if derailed and passing over it, to cause any greater risk to the train and its contents than if it were not in place.

(b) It must be as efficient as is practicable in turning stock. When condition (a) is complied with this is the leading requirement.

(c) Quietness under a rapidly running train is a very desirable quality; that is, it should not rattle or give other audible noises when a high speed train is passing it.

(d) It should not be liable to disarrangement under the conditions of use, and consideration should be given to the fact that brake and other gear at times is dropped so low as to be in danger of tearing up projecting parts if not guarded against.

(e) The matter of expense of first cost and maintenance should be given careful consideration, including facility of repair by section men under ordinary conditions, and further as to the facility of keeping the track at the point occupied by the guard in equally good condition with that of the adjoining track and road-bed.

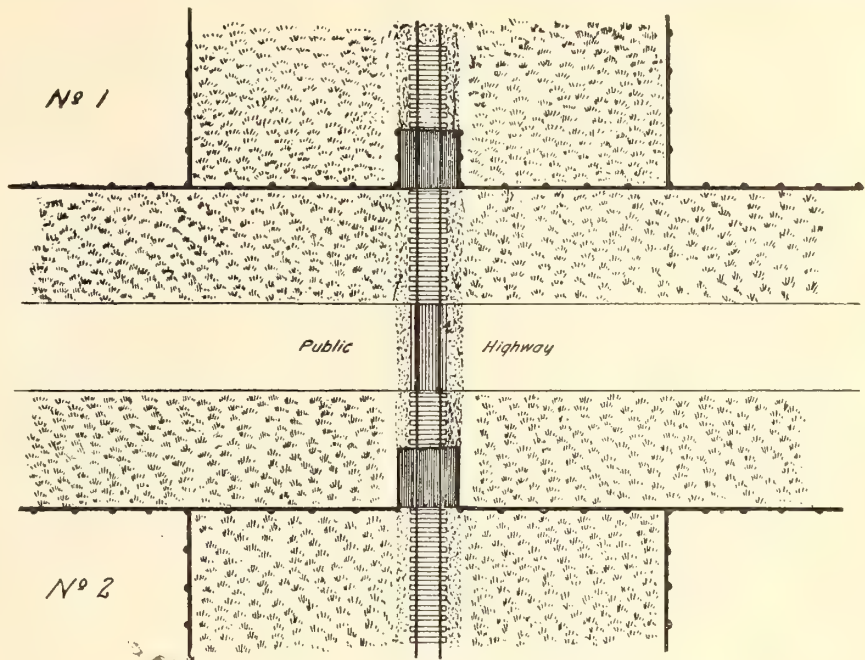
(f) To be easily and safely passed by train-men on foot.

(g) Not to entrap animals by catching and holding their feet.

The commissioners also issued diagrams, copies of which are given on this page, showing a proposed change of location of cattle-guards at highway crossings, accompanied by the following memorandum:—

"Diagram 1 represents a cattle-guard of any type as it is usually set relative to the highway fence, the only difference being that in some cases the highway fence is brought to the middle of the guard instead of the highway end as shown.

"Diagram 2 shows the proposed change in the location of fences and guards, i.e., place the guard within 4 or 5 ft. of the ends of the crossing plank of the travelled way and bring the highway fence to within 7 ft. or 8½ ft. of the centre of track and return parallel with track to highway end of guard. The object being—in case of wandering animals feeding along the roadside, their attention will be directed away from the right of way of the railway, instead of finding an opening into which their curiosity tends to lead them, as now. It reduces the length of crossing upon which animals may gather, as is their tendency in some localities. At the same time it does not impair the usefulness of the highway in the least, since the part thus fenced is not used for travel. It will be additionally effective as a crossing signal and prevent teams under the guidance of irresponsible drivers from turning down the track. Of this there are several disastrous instances, particularly in reference to the old pit guard, as well as others. It offers no inducement for the animals to go on the right of way, because there is apparently only the track ties and ballast, protected by a guard, to the right or left, while there is the regular highway with no hindrance, left open to them, with further apparent open gateway which curiosity will tend to lead them to choose. In case of cattle being met on the crossing by a train, as is frequent, the fences will act as a shelter be-



ARRANGEMENT OF CATTLE GUARDS AND FENCE.

hind which the animals will dodge, instead of, as now, making a rush for the opening which the guard is called upon to protect."

The commissioners have been devoting considerable time to testing appliances offered by manufacturers and inventors at the exhibition buildings, Ottawa. A section of standard gauge track was laid for the purpose, and the invention put in place. A tempting feed of hay is put near one end of the guard, and half-a-dozen cattle are led into the area on the other side and left to their own devices. The efficiency, or otherwise, of the guard is thereby put to the test. The commissioners, railway men, inventors and others make note of the result. It is a question whether the later tests, at any rate, are just exactly fair, as the cattle have become "experts" in this line of business.

Color Sense, Sight and Hearing.

The C.P.R. Manager of Transportation, Thos. Tait, has issued a circular stating that the management recognizing the need of a uniform system of testing the color sense, sight and hearing of employees connected with the movement and handling of engines and trains and for the further safe-guarding of life and property, have, after careful consideration, adopted a standard of tests which are as simple as it is possible to have them, consistent with accuracy. On and after Jan 1, 1903, a standard of color sense, sight and hearing will be adopted, and everyone appointed to the occupations hereinafter named must be provided with a certificate showing that his color sense, sight and hearing measures up to this standard. R. J. E. Scott, Chief Inspector of Time Service, has been appointed Chief Examiner, and the certificate must be signed by him, or his designated representative, after he has tested the candidate in the manner prescribed.

COLOR SENSE will be tested by Prof. Holmgren's wools and Dr. Williams' lantern, but not by the matching of colors, as some have wrongly supposed. The purpose is not to find out how much technical knowledge of shades of color a man has, but simply to determine if he is dangerously defective in his perception of red or green. Sight will be tested by the reading of various test cards at a distance of 20 ft., each eye being tested sep-

arately. An employee requiring glasses to read a train order or a newspaper, may not be at all disqualified for seeing at a distance. Hearing will be tested by counting the ticks of a ratchet acoumeter at a distance of 20 ft., each ear being tested separately. Any employee who on being tested by the Chief Engineer is found to be seriously defective in color sense, sight or hearing, may appeal to a designated oculist specialist, and the cost of such examination will be paid by this Co. Re-examinations will be made every three years, or after a serious illness or accident; or yearly (for sight) in Class A if one eye is found to have less than half of normal vision. Employees will be notified locally as to dates on which the Chief Engineer will be at divisional headquarters for the purpose of making examinations and issuing certificates. The following standards of sight will be considered as satisfactory for the different classes of employees mentioned. These standards must be strictly observed, but if in the opinion of the Superintendent any exception should be made the matter must be referred to the General Superintendent for final decision, with full report containing the reasons therefor.

CLASS A—Engineers, firemen, signalmen. On entering the service, 20/20 in each eye tested separately without glasses. Re-examination of those in the service: not less than 20/30 with both eyes open, without glasses. Glasses not to be worn on duty, except for reading train orders, or similar use.

CLASS B—Conductors, train baggagemen, brakemen, yardmasters, yard foremen, yardmen, switchmen, road crossing flagmen. On entering the service, 20/20 in one eye, and not less than 20/40 in the other, tested separately, without glasses. Re-examination of those in the service: not less than 20/40 with both eyes open, without glasses. Glasses not to be worn on duty by men whose work requires them to be out of doors in all weather, but they may be worn for reading or similar use.

The Duluth, South Shore and Atlantic Ry., owing to the scarcity of fuel, has ceased hauling the dining cars of the Chicago and Northwestern Ry. and the Chicago, Milwaukee and St. Paul Ry. to Calumet and Marquette, but will do so again when navigation is reopened.

Galena-Signal Oil Company,

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Successor to Galena Oil Company and Signal Oil Company, sole Manufacturer of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.



TRANSPORTATION IN THE FAR NORTHWEST.

The Hudson's Bay Company's ocean, lake and river fleet.

The Engineers' Club of Toronto.

C. H. Rust, City Engineer of Toronto, in the course of his inaugural address as President of the Engineers' Club of Toronto, recently dealt with the work of the City Engineer, and gave a good deal of interesting informa-

tion about Toronto city works. Among other matters he alluded to the operations of the Bell Telephone Co. and the Toronto Ry. Co. "The Bell Telephone Co.," he said, "is the only telephone company operating in Toronto. The Co. has about 7,200 telephones in use and 11,000 miles of overhead wire, 10,000

miles of underground wire, 49,000 ft. of underground conduit and 6,000 ft. of ducts."

Referring to the street railway, Mr. Rust said: "In 1861 the city council passed a by-law authorizing the construction of street railways under a proposal made by Alex. Easton. A flat rail of Philadelphia pattern

was used and the tracks were to be of such a gauge as would permit of their use by ordinary vehicles, which was fixed at about 4 ft. 11 in. The cars were to be run 16 hours daily in the summer and 14 hours in the winter, with a headway not greater than 30 minutes, the maximum fare to be 5c. on any route. The franchise was for 30 years. The only revenue derived by the city from the franchise was a yearly fee of \$5 a car. Between 1862 and 1869 the Co. constructed about 4 miles of single track in accordance with the terms of the lease, viz., on King st., from St. Lawrence Market to Yonge st.; on Yonge st., from King st. to the Yorkville town hall, and on Queen st., from Yonge st. to Dundas st. The road not proving prosperous, an act for its sale was secured in 1869 and a sale was made to Wm. and Geo. Kiely. The consideration was about \$49,000. The property then consisted of 4 miles of single track, 40 horses, 12 two-horse cars, 2 one-horse cars and 4 or 5 busses. The actual cash payment, however, was only \$7,500. The first year's business from 1869 to 1870 showed a net profit of \$11,200, with assets estimated at \$58,000. The net revenue in 1889 to 1890 was \$243,000, while between 1869 and 1890 the owners drew out of the Co. in dividends, bonuses and salaries, \$554,000. The corporation having decided, on the termination of the 30 years' lease, to acquire the property, in 1890, Judge Senkler, S. Barker and C. H. Ritchie were appointed arbitrators. The arbitration began on Sept. 2, 1890, and the arbitrators made their award April 15, 1891, allowing the Co. \$1,543,788. On May 16, 1891, the city acquired the property and engaged Jas. Gunn, Secretary of the Co., to act as Manager. The only change made was the reducing of the employees' time to 10 hours a day, at a minimum rate of wages of 15c. an hour. This increased the running expenses and reduced the net profits considerably. Notwithstanding, the city's management from May 16 to Aug. 31, 1891 showed a balance of \$61,863, the net profit being \$45,500. On Sept. 1, 1891, the contract and lease between the new company and the city was signed and the property handed over, the company agreeing to pay the city \$800 a mile of single track and 8% of the gross receipts; when the gross receipts exceed \$1,000,000 the company pays the city 10%. The company at present has in operation about 90 miles of single track and 696 cars of all kinds."

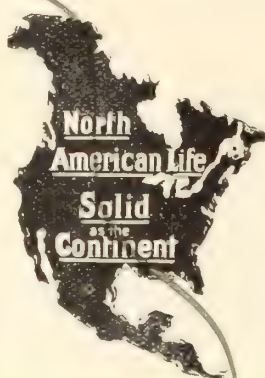
The Engineering and Contracting Co. of Canada (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$500,000, to carry on the business of general contractors, and among other purposes to acquire the business of Davis, Haney and Miller, of Depot Harbor, Ont. The provisional directors are J. T. Davis, of Montreal; M. J. Haney, C.E., Toronto; R. Miller, F. R. Miller, C.E., of Ingersoll, Ont.; and J. R. O'Neill, of Cardinal, Ont.

The action brought by the Taff Vale Ry. Co. against the Amalgamated Society of Railway Servants for damages caused by the Co.'s employees going on strike by order of the society, has been decided in favor of the Co. by the British courts, the question of the amount of damage being reserved. The Co. claims £28,000. The society has decided to accept the verdict, and to pay whatever damages are assessed against it.

The Simplex Railway Appliance Co. of Canada (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$500,000, to manufacture and deal in railway supplies and appliances of every class and description. The incorporators are: W. V. Kelley, G. E. Scott, R. P. Lamont, of Chicago, Ill.; W. W. Butler, of New York city; and R. D. McGibbon, of Montreal. The chief place of business is Montreal.

TWENTY-SECOND ANNUAL STATEMENT

—OF THE—



NORTH AMERICAN LIFE ASSURANCE COMPANY

HEAD OFFICE, 112-118 KING ST. WEST
TORONTO

For the Year Ended 31st December, 1902

Dec. 30, 1901. To Net Ledger Assets.....\$4,194,309 61

RECEIPTS

Dec. 31, 1902. To Cash for Premiums.....\$1,049,652 74
To Cash Income on Investments.....221,187 47
1,270,840 21
\$5,465,149 82

DISBURSEMENTS

Dec. 31, 1902. By payment for Death Claims, Profits, etc.....\$374,413 14
By all other Payments.....316,851 33
691,264 47
\$4,773,785 35

ASSETS

Dec. 31, 1902. By Mortgages, etc.....\$1,070,703 68
By Debentures (market value \$1,097,535 52).....1,080,601 72
By Stocks and Bonds (market value \$1,501,764.00).....1,455,729 87
By Real Estate, including Company's building.....404,684 69
By Loans on Policies, etc.....321,642 92
By Loans on Stocks (nearly all on call).....351,257 00
By Cash in Banks and on hand.....89,165 17
\$4,773,785 35
By Premiums outstanding, etc. (less cost of collection).....198,982 10
By Interest and Rents due and accrued.....38,045 76
\$5,010,813 21

LIABILITIES

Dec. 31, 1902. To Guarantee Fund.....\$ 60,000 00
To Assurance and Annuity Reserve Fund.....4,385,565 00
To Death Losses awaiting proofs, etc.....50,203 45
\$4,495,768 45
Net Surplus.....\$515,044 76

Audited and found correct.

JOHN N. LAKE, Auditor.

The financial position of the Company is unexcelled—its percentage or net surplus to liabilities exceeds that of any other Home Company.

New insurance issued during 1902.....\$6,600,265 00
Exceeding the best previous year in the history of the Company by over one million dollars.
Insurance in force at end of 1902 (net).....\$30,637,268 00

PRESIDENT—JOHN L. BLAIKIE.

VICE-PRESIDENTS—JAS. THORBURN, M.D., HON. SIR WILLIAM R. MEREDITH, K.C.

DIRECTORS—HON. SENATOR GOWAN, K.C., LL.D., C.M.G., E. GURNEY, Esq.,
L. W. SMITH, Esq., K.C., D.C.L., J. K. OSBORNE, Esq.,
D. McCRAE, Esq., Guelph.

MANAGING DIRECTOR—WM. McCABE, LL.B., F.I.A., F.S.S.

SECRETARY—L. GOLDMAN, A.I.A.

MEDICAL DIRECTOR—J. THORBURN, M.D. (Edin.)

The Report containing the proceedings of the Annual Meeting, held on January 29th last, showing marked proofs of the continued progress and solid position of the Company, will be sent to policy-holders. Pamphlets explanatory of the attractive investment plans of the Company, and a copy of the Annual Report, showing its unexcelled financial position, will be furnished on application to the Head Office, or any of the Company's agencies.

THE HUDSON'S BAY COMPANY.

The story of the Hudson's Bay Co. since Henry Hudson set sail from London in 1607 for the north coast of Greenland to discover the Northwest passage contains much that is highly romantic and exceedingly fascinating; indeed, it reads like a story from the Arabian Nights. The Company was incorporated by Royal Charter in 1670. It is the oldest corporation in the world, and when posterity shall demand the roll-call of the famous corporations which have done so much for this Dominion in its remote and almost inaccessible regions, the name of the Hudson's Bay Co. will stand out in letters of gold. Through this Company great advances were made in the civilization of Western Canada when the

and gave the Company the sole right of trading in Rupert's Land—which embraced all lands drained by Hudson's Bay and its tributaries. Here the Company carried on fur trading for two centuries. With the advance of civilization and the development of the Dominion, competition and strife came, which wrought many changes, to chronicle which would require several volumes. The history of the Hudson's Bay Co. since the amalgamation of the western territories with the Dominion is no longer that of a powerful trading corporation holding sovereign power over a vast region, but its history is inseparable from the history of the Dominion, and remains a proud record of progress, prosperity, and perseverance.

The Company still, however, continues to

and it has extensive branches at Battleford, Biscotasing, Calgary, Deloraine, Edmonton, Fort Frances, Fort William, Glenora, Kamloops, Lethbridge, Lower Fort Garry, Macleod, Mattawa, Missanabie, Nelson, Nipissing, Pincher Creek, Portage la Prairie, Port Simpson, Prince Albert, Qu'Appelle, Quesnel, Rat Portage, Shoal Lake, Vancouver, Vernon, Victoria, Whitewood, Yorkton, and last and not least, Winnipeg. In addition to the above formidable array of business houses the Company owns a fleet of steamboats which ply upon the Athabaska, Slave, Mackenzie, Skeena, and Stikine rivers. It has steamers also plying between London, Eng., and York Factory, on Hudson's Bay; in fact, so widespread are the operations of the Company that the out-of-the-way traveller



THE HUDSON'S BAY COMPANY'S NORTHERN TRANSPORT SERVICE.

- (1) Scow running the rapids at Smith portage. (2) Carts on portage at Slave river. (3) Steamer Grahame, Athabasca river.
(4) Tramway at the Grand Rapids of the Athabasca river

rest of the world considered it merely "a few acres of ice and snow."

We would be glad to give the whole romantic story which preceded and followed the granting of the charter by that most bountiful of lavish donors—King Charles II., but time and space will only permit a few hard facts dealing with the present-day operations of this great Company. By his "especial grace, certain knowledge, and mere motion" Charles gave "to his beloved cousin, Prince Rupert," the Duke of Albemarle, the Earl of Craven, Lord Arlington, Lord Ashby, several baronets, knights and citizens—less than twenty in all—the territory which was henceforward to be the property of the Hudson's Bay Co. Worthy of notice is the high rank of the nobles and gentlemen associated with a prince of the Royal blood in this mercantile company. The charter was broad and liberal,

be the largest fur-trading corporation in the world, and its annual sales in London, Eng., attract buyers from all parts of the world. The Company has made giant strides in the mercantile world, and it is not too much to say that there is no concern of the kind in the old or new world that can be compared with it. Its business ramifications are so extensive and varied that they stretch from the Labrador coast to the boundary line between Alaska and British Columbia, and from the 49th parallel to the Arctic seas. It has trading posts, as one may say, in the uttermost parts of the earth, and has developed a mercantile trade which reigns supreme.

It carries on a large milling business, and maintains flour mills at Winnipeg, at Prince Albert, Sask., and at Vermillion, in the Peace River Valley. The headquarters of its mercantile business in Canada is at Winnipeg,

who fancies himself "forty miles from soap, civilization, and whiskey" may suddenly be agreeably surprised to find that an agent of the H.B. Co., with all the conveniences of life, is within reach.

The names given to some of the most distant and dreary of the northern posts of the Company on Mackenzie river and the Great Slave lake seem to have been designed to keep up the spirits of their isolated occupants. Thus we have "Providence," "Reliance," "Resolution," "Enterprise," "Good Hope," and "Confidence."

Every Sunday the Company's flag floats from the office of the factor at each post, thus serving as a kind of calendar for the natives to mark the passing of another week of time. It is a plain white pennant, bearing upon its surface the crest of the Company, its motto, "Pro Pelle Cutem," and the initials

"H.B.C.," which one traveller, who came upon it for the first time in the wilderness, interpreted to stand for "Here before Christ."

As an illustration of what some of the outlying posts of the Company are like, a brief description may be given of the most northerly permanent dwellings of white men on the Atlantic side of the American continent. These are to be found at Fort Chimo and Fort George, on Ungava bay. Fort Chimo was established as a trading station by the Hudson's Bay Co. about 1828, and continued until 1841, when it was abandoned, and re-established in 1866. About a dozen log structures, covered with boards, in most instances whitewashed, are arranged upon no definite plan, while the population is exclusively that of the servants of the Company, several of whom have taken native Eskimo wives. The station is supported by the yield of furs from the district, by the capture of the white whale, of which some 200 are taken annually; by the dressed skins of the reindeer, of which over 2,000 are often killed in the course of a year, and by the large quantities of salmon taken for export, running from 25 to 50 tons annually, besides the export of about 120 barrels of porpoise and seal oil.

It is just 21 years since the Company moved its headquarters from old historic Fort Garry, now within the limits of the city of Winnipeg, to the corner of Main, York, and Fort streets. Here the Company erected a huge structure covering a whole block, which contains the general offices and the stores. There is no establishment on the American continent that carries a more complete or diversified line of merchandise than the Hudson's Bay Co.

The Governor of the Company is Lord Strathcona and Mount Royal, whose deep interest in the affairs of the great Company, as well

as in all that pertains to the best interests of Canada, is too well known to require to be more than mentioned.

The chief executive officer in Canada is the Commissioner, Mr. C. C. Chipman, whose headquarters are in Winnipeg, from which he controls the entire business of the Company in Canada. To stand at the head of such a time-honored, mammoth, and successful corporation, and guide its destinies with unerring judgment, is not only a high honor, but demands a rare amount of tact, judgment, business energy, acumen, and capacity. All these, combined with a high intelligence and sound reasoning powers, Mr. Chipman possesses to a high degree. He has, in addition, a marvellous mastery of details, and an intimate and far-reaching knowledge of the minutest workings of this great business. He is enterprising and progressive, and one of those with whom it is a pleasure to do business.

The C.P.R.'s Irrigation Project.

The proposed Bow river irrigation canal scheme, which is now being considered by the C.P.R. Co., is one of the largest irrigation projects on this continent. The proposed canal heads in the Bow river in the immediate vicinity of Calgary, and is designed to divert from the Bow river at that point some 2,000 cubic feet of water per second for the irrigation of the large area lying east of Calgary and adjacent to the main line, which, it is thought, if brought under irrigation will be rapidly settled and developed into one of the most prosperous districts in the west. Some 2,500,000 acres of land are embraced in the scheme, and the ultimate cost of the completion of the total scheme will be about \$4,500,000. It is not, however, proposed to expend all this sum at once, but to proceed with the

construction of the canal section by section, so that the possibility of colonizing and developing the land by the means of irrigation can be clearly demonstrated as the undertaking is extended.

Irrigation is largely a new work in Canada, because in the older Provinces and the larger part of Manitoba and the Northwest Territories there is sufficient rainfall to mature crops without the aid of the artificial application of water. In a large part of Southern Alberta and Western Assiniboia, however, the annual rainfall only amounts to about 11 ins., and while there are seasons such as those experienced during the last three years within which there has been sufficient rainfall to mature crops, experience has proved that in the large number of years crops can only be successfully raised when artificially watered, and with water diverted from streams through irrigating canals.

Over 500 miles of irrigation canals and ditches have been constructed in Southern Alberta and Western Assiniboia, and the results obtained from the application of water through these canals has conclusively proved that by irrigation all the fodder and coarse grain crops can be successfully produced. In fact, the transformation which has been worked in the Lethbridge district owing to the construction of the large irrigation system of the Canadian Northwest Irrigation Co. may be referred to as one of the most marvellous developments of the West, where rapid settlement and development are the rule rather than the exception, at least during the last three years, and it is thought that if anything like the same results can be obtained in the area which is proposed to be embraced in the Bow river canal scheme, that district, which is now practically unsettled, can be peopled with prosperous settlers and made revenue-producing from the traffic standpoint as far as railways are concerned. It

AMERICAN LOCOMOTIVE CO.

Builders of Single Expansion and Compound Locomotives for All Classes of Service, from Original Designs or from Specifications Furnished by Purchasers.



Atlantic Type Locomotive, built for the New York Central and Hudson River Railroad.

OWNING AND OPERATING THE

SCHENECTADY LOCOMOTIVE WORKS, Schenectady, N.Y.
BROOKS LOCOMOTIVE WORKS, Dunkirk, N.Y.
PITTSBURG LOCOMOTIVE WORKS, Allegheny, Pa.
RICHMOND LOCOMOTIVE WORKS, Richmond, Va.

COOKE LOCOMOTIVE WORKS, Paterson, N.J.
RHODE ISLAND LOCOMOTIVE WORKS, Providence, R.I.
DICKSON LOCOMOTIVE WORKS, Scranton, Pa.
MANCHESTER LOCOMOTIVE WORKS, Manchester, N.H.

President - S. R. Callaway | Second Vice-President, R. J. Gross | Treasurer - C. B. Denny | Mechanical Engineer - J. E. Sague
 Vice-President - A. J. Pitkin | Secretary - Leigh Best | Comptroller, C. E. Patterson | General Purchasing Agent, H. C. Hequembourg

GENERAL OFFICES

-25 Broad Street, NEW YORK CITY.

will, of course, take some years to elaborate this scheme, but general satisfaction has been expressed throughout the whole West at the fact that the Co. is taking it up and purpose dealing with the matter in a vigorous manner. The work will be in charge of J. S. Dennis, who has been appointed Superintendent of Irrigation and B.C. Land Commissioner, with office at Calgary, Alta.

The C.P.R. has engaged W. W. Hubbard, an agricultural writer and an authority on stockbreeding, to lecture in the districts of the Maritime Provinces served by the line, on a number of topics of interest to farmers, with a view of developing stockraising, etc., and thereby bringing increased freight to the Co. Many U.S. railways have an elaborate system of promoting traffic along these lines, and for a number of years the Great Eastern Ry. in England has been building up the poultry and fruit raising industries of Essex and Suffolk by somewhat similar means.

By the purchase of the Lake Erie and Detroit River Ry., the Pere Marquette Rd. will be able to carry freight from its Detroit and Port Huron terminals as far east as St. Thomas, about 120 miles in each case. At St. Thomas the traffic will be handed over to the Michigan Central Rd., under a pro rata arrangement. This applies to freight only, but it is understood that the P.M. Rd. is after passenger business as well.

The Canadian Northern Ry. has been holding classes for the instruction of its employes in the standard train rules, which went into operation on its lines Mar. 1.

Canadian Society of Civil Engineers.

The annual meeting was held in Montreal Jan. 28 and 29, under the chairmanship of Martin Murphy, D.Sc., President, who, in the course of his presidential address, dealt with the growth of the science and practice of engineering in Canada, and pointed out that there were now over 18,000 miles of railway in the Dominion, built at a cost of a billion dollars, of which Dominion, Provincial and Municipal Governments had contributed something less than one-quarter. Canada had more railways in proportion to her population than any other country in the world, Australia being a close second, and the United States third.

The report of the council showed that during 1902 there had been elected 14 members, 27 associate members, 3 associates and 72 students, the roll now containing the names of 8 honorary members, 338 members, 341 associate members, 33 associates and 262 students, a net total increase over 1901 of 90. The report specially referred to the death of E. P. Hannaford, a past president, and for 30 years Chief Engineer of the G.T.R. The Treasurer's report showed a balance of \$1,024.06 on general account, and of \$742.51 on building account.

A proposition to change the name of the society by dropping the word "civil" was discussed, but was left over for the new council.

A number of papers were read, including the following: Tide Levels and Datum Planes in Eastern Canada, by W. B. Dawson, D. Sc., F.R.S.C.; The Hydraulic Dredge, King Edward VII., by A. W. Robinson; The economy of small gas engines using Montreal illuminating gas, by H. M. Jaquays; and

Some problems in connection with the erection of the Miramichi bridge, by H. D. Bush.

The election of officers, a list of whom will be found on the second page of this issue, the fixing of a standard for cement, and the transaction of general business concluded the meetings. The members dined together Jan. 28 and entertained a number of scientific men and railway officials, F. H. McGuigan, Manager, G.T.R., and C. J. Smith, Traffic Manager, Canada Atlantic Ry., replying to the toast of the guests.

Superintendent J. B. Morford, of the Michigan Central, recently appeared before Judge Hickey, of Niagara county, N.Y., to answer a charge of alleged violation of law in discharging clerks because they belonged to the Order of Railway Clerks. The law cited makes it a misdemeanor for an employer to compel or coerce an employe not to join a labor organization, as a condition of securing or retaining employment. The facts of the case showed that on Dec. 1, 1902, two clerks were discharged by the agent at Suspension Bridge, N.Y., and the other 22 threatened to leave work unless the discharged clerks were reinstated. On the fact being reported to Mr. Morford he directed the discharge of the 22 unless they returned to work on the following morning. They did not do so and were discharged. Some of the clerks went to Longport and had Mr. Morford indicted under section 171 of the Criminal Code, "Coercion of employes."

A passenger service has been established between Chicago, Ill., and Sault Ste. Marie, Mich., via the Chicago and Northwestern

Ry. and the Minneapolis, St. Paul and Sault Ste. Marie Ry. The new service is via Milwaukee, Fond du Lac, Oshkosh and Green Bay, Marinette, Menominee and Escanaba to Larch, the junction point with the "Soo" line and thence via Gladstone, Manistique and Trout Lake to Sault Ste. Marie. The through sleeping car leaves Chicago at 8 p.m. daily, except Sunday, from the Northwestern's Wells st. station and reaches Sault Ste. Marie at 10.20 the next morning. Southbound, leaves the "Soo" at 3 p.m. daily except Sunday, arriving in Chicago next morning at 7.30.

The Inverness Ry. and Coal Co.'s collieries output for 1902 was 68,506 tons, of which 30,182 were mined between Oct. 1 and Dec. 31.



TRANSPORTATION IN THE FAR NORTHWEST.

Hudson's Bay Company's dog trains at Lower Fort Garry, Manitoba, bound north.

Fast Run on the Michigan Central Rd.

E. D. Bronner, Superintendent of Motive Power of the M.C.R., has supplied the record of a fast run recently made on the Canadian division. The locomotive was no. 483, of the 4-4-2 type, built at the Schenectady works of the American Locomotive Co., and similar to those of the same type on the New York Central. The train of 16 passenger equipment cars weighed 605.55 tons, and was hauled 168.22 miles in 127 minutes--at the rate of 55.8 miles an hour. There were eight slow-downs. Considering these and the weight of the train, this record is believed to be unsurpassed. The weight of the engine with a half tank of water and coal is 125.62 tons, making a total of 731.19 tons, including the engine and tender. The weight, 605.55 tons, is that back of the tender. This run demonstrates the value of this able boiler with 3,521 sq. ft. of heating surface, and of the large grate. The record of the run is as follows:

Station.	Time.	Mins.	Miles.	Miles
Bridgeburg	A8:13 a.m.			per hr.
	D8:19 a.m.			
Victoria	8:21	2	0.81	24.30 *
Niagara Jct.	8:24	3	1.27	25.40 *
Stevensville	8:30	6	5.06	50.60
Brookfield	8:45	5	5.44	65.28
Welland	8:40	5	4.71	56.52 †
Perry	8:50	10	9.34	56.04 †
Attercliffe	8:59	9	8.22	54.80
Canfield	9:07	8	7.31	54.98 †
Edward	9:12	5	4.82	57.84
Hagersville	9:24	12	11.57	57.85 †
Townsend	9:30	6	5.57	55.70
Villa Nova	9:32	2	2.25	67.50
Waterford	9:37	5	4.93	59.16 †
Windham	9:44	7	6.57	56.31
Pt. Dover Jct.	9:48	4	4.13	61.59 †
Hawtreys	9:49½	1½	1.23	49.20
Cornell	9:54½	5	5.08	60.96
Tillsonburg	10:00	5½	5.44	59.35
Brownsville	10:06	6	5.79	57.90
Springfield	10:11½	5½	5.17	59.67 †
Aylmer	10:14	2½	2.46	59.04
Kingsmill	10:17	3	2.74	54.80
Yarmouth Crossing				†
St. Thomas	A10:26	9	7.99	53.27 *
		127	118.22	

* Yard limits. † Slow down for R. R. crossing.
‡ Slow down for double track switch.

The train consisted of eight New York Central coaches, one baggage and mail car, one express car, five Michigan Central coaches and one Pullman sleeper. The cars weighed 1,081,150 lbs. and the contents (estimated) 130,000 lbs. Such a train would require a tractive effort of about 13,000 lbs. at a speed of 55.8 miles per hour. This would call for a mean effective pressure of about 88 lbs. and the probable horse-power developed would be about 1,900 h.p. In the absence of indicator cards these figures are estimated, and also the figures of 142 lbs. of coal per square foot of grate per hour with which this work is believed to have been done.

Addresses Wanted.

We want to obtain the addresses of the persons mentioned below and shall be much obliged to any of our readers who can furnish the same.

Luke Maddigan, contractor; last known address, Savanne, Ont.

J. A. McDonnell, contractor; last known address, Savanne, Ont.

C. Halifax Hall, C.E.; last known address, Nelson, B.C.

W. Storms. Last known address Roadmaster, C.P.R., Field, B.C.

E. H. Wilcox. Last known address B.C. Electric Ry., Vancouver, B.C.

The Montreal Street Ry. Co. will operate a number of tourist cars on its system during the summer for the convenience of tourists visiting the city. Each car will be in charge of a guide who will describe the places along the route and give information about the city that the visitors may desire enlightenment about. Similar cars were operated in Quebec for a short period in 1901. They are operated in Washington and other U.S. cities and are largely patronized.

March Birthdays.

Many happy returns of the day to P. S. Archibald, C.E., ex-Chief Engineer I.C.R. at Moncton, N.B., born at Truro, N.S., Mar. 21, 1848.

C. N. Armstrong, ex-General Manager Atlantic and Lake Superior Ry. at Montreal, Que., born at Maskinonge, Que., Mar. 19, 1850.

D. E. Brown, General Agent C.P.R. for China, Japan, etc., at Hong Kong, born at Owen Sound, Ont., Mar. 20, 1855.

G. J. Bury, General Superintendent Lake Superior division C.P.R. at North Bay, Ont., born at Montreal, Que., Mar. 6, 1866.

J. A. Cameron, ex-Superintendent C.P.R. at Cranbrook, B.C., born at Pictou, N.S., Mar. 5, 1855.

F. G. J. Comeau, General Freight Agent Dominion Atlantic Ry. at Halifax, N.S., born at Meteghan River, N.S., Mar. 10, 1859.

A. E. Cox, Storekeeper Canadian Northern Ry. at Winnipeg, Man., born at Huddersfield, Eng., Mar. 12, 1863.

H. B. Curtis, General Superintendent Newfoundland Express Co. at St. John's, Nfld., born at Adrian, Ohio, Mar. 21, 1848.

Hon. L. J. Forget, President Richelieu and Ontario Navigation Co., born at Terrebonne, Que., Mar. 11, 1853.

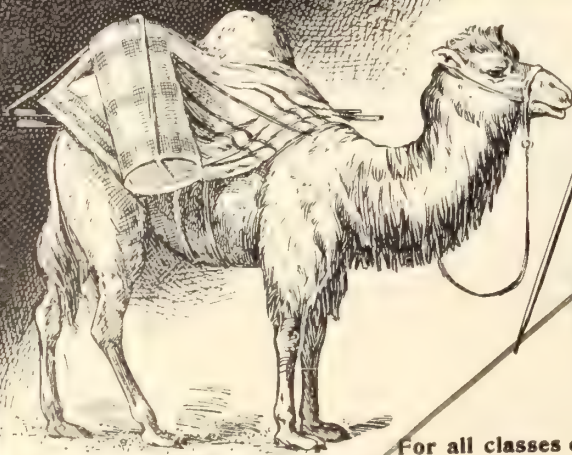
C. O. Foss, Chief Engineer Nova Scotia Central Ry. at Bridgewater, N.S., born at Wentworth, N.H., Mar. 20, 1852.

H. W. Gays, President and General Manager Ottawa and New York Ry., and Receiver New York and Ottawa Rd. at Ottawa, Ont., born at Brant, Erie co., N.Y., Mar. 21, 1848.

F. Grundy, General Manager Quebec Central Ry. at Sherbrooke, Que., and President Temiscouata Ry., born at Bury, Lanc., Eng., Mar. 28, 1836.

J. Halstead, chief clerk to Assistant General Freight Agent C.P.R. at Vancouver, B.C., born at Bracebridge, Ont., Mar. 2, 1877.

It is Easier for a Camel



to go through the eye of an needle than for you to get a better Jack than

The Norton Ball-Bearing Jack

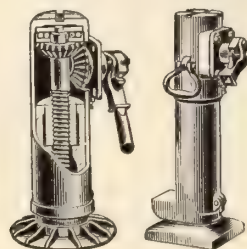
For all classes of Heavy Lifting.

Manufactured by

A. O. Norton, Coaticook, Quebec.

Stock Carried by

Canadian Agents: W. H. C. MUSSEN & CO., Montreal



change electro

W. Harty, M.P., President Canadian Locomotive Works, Kingston, Ont., born in Bidulph tp., Middlesex, Ont., Mar. 8, 1847.

H. S. Heydon, New York Agent Canada Atlantic Ry., at New York city, born at Newark, N.Y., Mar. 28, 1861.

C. B. Hibbard, Passenger Traffic Manager Rutland Rd. at Rutland, Vt., born at St. Johns, Que., Mar. 31, 1858.

J. Hobson, Chief Engineer G.T.R. at Montreal, born at Guelph, Ont., Mar., 1834.

C. E. Lytle, General Superintendent Duluth, South Shore and Atlantic Ry. at Marquette, Mich., born at Newark, Ohio, Mar. 2, 1859.

Owen McKay, Division Engineer Lake Erie and Detroit River Ry. division of the Pere Marquette Rdt, Walkerville, Ont., born in Ross tp., Renfrew co., Ont., Mar. 13, 1848.

R. Patterson, Master Mechanic G.T.R. at Stratford, Ont., born at Brantford, Ont., Mar. 13, 1860.

J. Ritchie, General Eastern Agent Canada Atlantic Ry. at Boston, Mass., born Mar. 16, 1860.

J. A. Sheffield, ex-Superintendent Sleeping and Dining Cars C.P.R. at Montreal, born at Columbus, Ohio, Mar. 16, 1845.

C. J. Smith, General Traffic Manager Canada Atlantic Ry. and Canada Atlantic Transit Co. at Ottawa, Ont., born at Hamilton, Ont., Mar. 10, 1862.

W. Y. Soper, Vice-President Ottawa Electric Ry. Co., Ottawa, Ont., born at Oldtown, Me., Mar. 9, 1854.

W. F. Tye, Assistant Chief Engineer C.P.R. at Montreal, born at Haysville, Ont., Mar. 5, 1861.

H. Wallis, ex-Chief Mechanical Superintendent G.T.R., Montreal, born at Derby, Eng., Mar. 10, 1844.

D. O. Wood, Western Agent at Toronto for Robert Reford Co., Steamship Agents, Montreal, born at Kleinburg, Ont., Mar. 16, 1864.

The "General Conditions of Carriage" for freight over the Canadian Government Railways, which have been in force since Oct. 26, 1889, have been cancelled, and new general conditions substituted therefor, by an order-in-council, dated Feb. 4.

Mainly About People.

Capt. Clapp, of the Niagara Navigation Co.'s str. Chicora, is recovering from a serious illness.

J. W. Moyes, General Manager of the Metropolitan Ry., Toronto, is convalescent after a lengthened illness.

Arthur White, formerly District Freight Agent, G.T.R. at Toronto, has returned there after a trip to Japan.

J. D. Reid, Manager of the Prince Edward Island Telephone Co. at Charlottetown, died there Feb. 4, aged 61.

E. V. Skinner, General Eastern Agent C.P.R. at New York, was married there, Feb. 11, to Mrs. A. C. Flynn.

W. H. Rosevear, General Car Accountant G.T.R., was recently elected by acclamation as Mayor of St. Lambert, Que.

J. Kennedy, Chief Engineer to the Montreal Harbor Commission, left Montreal recently on a three months' vacation.

Hon. A. W. Harvey, largely interested in the shipping and marine insurance business in St. John's Nfld., died there Feb. 7.

M. P. McKinnon, Manager of the Eastern Telephone Co., Glace Bay, N.S., was married there Feb. 15 to Miss A. R. McNeill.

Sir Wm. Van Horne returned to Montreal Feb. 16 from Cuba, where he had been for some time in the interests of the Cuba Co.

W. Mackenzie, of Mackenzie, Mann & Co., and President of the Canadian Northern Ry., has returned to Toronto from London, Eng.

F. P. Belcher, Travelling Agent, Northern Navigation Co. at Winnipeg, Man., was married in Toronto, Feb. 9, to Miss J. M. Bailey.

Capt. W. B. Anderson, son of Lt.-Col. Anderson, Deputy Minister of Marine, was married to Miss L. W. Taylor, at Toronto, Feb. 14.

W. Mackenzie, President of the Canadian Northern Ry., was present at the regular dinner of the Canada Club in London, Eng., Feb. 4th.

Capt. Griggs, who died in Wenatchee, Wis., recently, ran the first line of steamers

on the Red River to Fort Garry, Man., from Minnesota.

T. H. Hurd, Right-of-Way Engineer of the Minneapolis, St. Paul and Sault Ste. Marie Ry., died suddenly at Minneapolis, Minn., recently, aged 70.

Jas. Playfair, of the Midland Navigation Co. and the Midland Towing and Wrecking Co., has been elected a member of the Montreal Board of Trade.

J. J. Scully, Chief Clerk to the General Superintendent Western division C.P.R. at Winnipeg, was married in Toronto, Feb. 24, to Miss Celia Mallon.

Miss J. Smith, daughter of the Manager of the C.P.R.'s Kaministiquia hotel, Fort William, Ont., was recently married to J. L. Davidson, of Toronto.

D. Willard, recently appointed 1st Vice-President and General Manager of the Erie Rd., entered railway service as a track laborer on the Central Vermont Rd. in 1879.

T. H. Creedon, General Manager of the Cape Breton Electric Co., Sydney, N.S., was married there recently to Miss G. Worgan, daughter of Capt. H. H. Worgan, R.N.R.

A. Patriarche, General Traffic Manager Pere Marquette Rd., and R. W. Leonard, Manager Cape Breton Ry., have been elected members of the Canadian Freight Association.

Capt. W. Ross, an old commander of the Allan Line of steamers, and for a number of years on the Great Lakes and St. Lawrence river, died at Westmount, Que., Feb. 7, aged 75.

Among those who contributed paintings to the recent loan exhibition in the Art Gallery, Montreal, were Sir Wm. Van Horne, C. R. Hosmer, Jas. Ross, R. B. Angus and H. Paton.

G. P. MacLaren, C.E., in the employ of Mackenzie, Mann & Co. on the Halifax and Southwestern Ry. surveys, was married recently at St. Margaret's Bay, N.S., to Miss G. J. Rankine.

J. W. Harkom, formerly Assistant to the Manager C.P.R. Eastern Lines, Mechanical Department, has been appointed General Superintendent of the Canada Foundry Co.'s works, Toronto.

H. G. McMicken, European Traffic Agent of the Great Northern Ry., U.S., is a director of the Imperial Food Supplies (Ltd.), which recently offered its stock for subscription in England.

C. H. Temple was the recipient of a presentation from the shopmen and engineers at the C.P.R. shops at Revelstoke, B.C., on his recent promotion to the position of Master Mechanic there.

Barlow Cumberland is retiring from the ticket agency business in Toronto, which has been carried on in his name since he went to



TRANSPORTATION IN THE FAR NORTHWEST.

Hudson's Bay Company's abitibi or freight canoes. The original large Northwest canoe; each canoe carries two tons of freight.

London, Eng., last year as Deputy Supreme Secretary of the Independent Order of Foresters.

J. G. Scott, General Manager Quebec and Lake St. John Ry. and Great Northern Ry. of Canada, Quebec, is a director of a company recently formed to publish a newspaper at Roberval, Que.

C. Dallas has been presented with two easy-chairs by the sectionmen of the Wingham, Ont., district, on resigning the position of Roadmaster there. He was in the G.T.R. service for 45 years.

H. J. Pettypiece, C.P.R. ticket agent at Forest, Ont., who is also M.L.A. for East Lambton, and publisher of the Forest Free Press, has been elected President of the Canadian Press Association.

A. O. Norton, of Boston, Mass., and Coaticook, Que., has purchased the Howard, Suffield and King copper mines at Suffield and Ascot, near Sherbrooke, Que., the price paid being, it is said, \$17,000.

P. W. Clement, ex-President of the Rutland Rd., and President of the Clement Na-

tional Bank of Rutland, Vt., has become a special partner of the firm of Haven & Clement, stockbrokers, New York.

J. F. Stevens, General Manager and Chief Engineer, Great Northern Ry., U.S., has resigned from both positions, and it is reported that after a short vacation he "will head an important engineering enterprise."

Mrs. H. Abbott, wife of the ex-General Superintendent of the Pacific Division, C.P.R., died at Vancouver, B.C., Feb. 16. She was a daughter of the late Hon. Mr. Justice Sicotte, St. Hyacinth, Que.

H. W. Brodie was entertained at dinner by the Winnipeg staff of the C.P.R. general passenger department on the occasion of his appointment as Assistant General Passenger Agent of the Co.'s Western lines.

V. Bartram, of the Canada Atlantic Ry.'s purchasing department, and who acted as private secretary to Col. Steele in South Africa, was married recently to Miss E. E. Welch, at Cheshunt, Hertfordshire, Eng.

Fireman Ord, of the C.P.R. express train which jumped the track at Greenville Jct.,

Me., Feb. 9, who received serious injuries, is a son of C. R. Ord, Master Mechanic of the C.P.R. Atlantic division at McAdam Jct.

W. Campbell, formerly private secretary to C. R. Hosmer, of the C.P.R. directorate, was presented with a leather travelling case by his Montreal friends, on leaving the C.P.R. service to enter that of the Ogilvie Flour Mills Co.

The Royal Canadian Humane Society has awarded medals to a number of residents of Kincardine, Ont., for conspicuous heroism in saving the crew of the schooner Ann Maria, stranded near that port during a heavy gale Oct. 7, 1902.

J. P. Vance, in charge of one of the C.P.R. survey parties on the route of the projected line from Saskatoon to Battleford, Sask., got separated from his party, Feb. 14, shortly before a blizzard and was found frozen dead in the snow.

L. W. Powers was presented with a cabinet of silver by the officers and employees of the Atlantic division C.P.R. on leaving St. John, N.B., recently for Montreal, where he has

There are No Substitutes for "Ogilvies" Flour.

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The BEST in the WORLD.

STEEL RAILS

We have pleasure in offering highest grade Bessemer Steel Rails made by THE ALGOMA STEEL CO., Ltd., of Sault Ste. Marie, Ont.

Offices—
CANADA LIFE BUILDING,
Montreal.
93 YORK STREET
Toronto.

Drummond, McCall & Co.,
General Sales Agents,
The Algoma Steel Co., Ltd.

been appointed chief clerk to the Manager of Transportation.

E. H. McHenry, Chief Engineer C.P.R., is one of the directors of the British Canadian Wheat Raising Co., Ltd., which purposes to cultivate 10,000 or 20,000 acres of land in Assiniboia, and recently offered its stock for public subscription.

J. E. Muhlfeld, formerly Superintendent of Machinery and Rolling Stock, I.C.R., has been appointed Superintendent of Motive Power of the Baltimore and Ohio Rd., for the Cleveland, Chicago and Newark districts. Office at Newark, N.J.

B. Holman, town agent of the C.P.R. and of the Dominion Express Co. at Windsor, Ont., was arrested there recently charged with the theft of some \$800 from the latter Company. He was committed for trial, and released on \$1,600 bail.

C. W. Spencer, General Superintendent Eastern division C.P.R., is a director of the Rosemount Land and Improvement Co., recently formed to develop a building estate close to the new shops being erected by the C.P.R. in Hochelaga, Montreal.

R. Potts was recently presented with an address, an easy chair, and an oak cellaret, by the employees of the car department of the Michigan Central Rd., St. Thomas, Ont., on his resignation of the position of Master Car Builder for the Canadian division.

W. C. Gage, agent of the Boston and Maine Ry. at Sherbrooke, Que., was presented with a gold watch, chain and locket by the staff of the B. and M. Ry., the G.T.R. and the Quebec Central Ry., recently, on the occasion of his removal to St. Johnsbury, Vt.

C. Cameron, of Collingwood, Ont., Vice-President of the Northern Navigation Co., was married at Guelph, Ont., Feb. 7, to Miss J. Penfold, sister-in-law of T. F. Savage, Travelling Freight Agent of the C.P.R. Mr. and Mrs. Cameron have gone to California for a trip.

F. W. Peters, recently appointed Assistant Freight Traffic Manager C.P.R. western lines at Winnipeg, was presented with a cut glass punch bowl and set of punch glasses by the wholesale merchants of Vancouver, B.C., on leaving there to take up the duties of his new position.

A. J. McDougall, recently appointed Division Passenger Agent of the Illinois Central Rd., and Yazoo and Mississippi Valley Rd., at New Orleans, La., has been presented by the general eastern passenger agents of New York city with a loving cup on leaving to take up his new duties.

Lieut. R. Salmon, R.N.R., has been appointed Chairman of the Board of Examiners of Masters and Mates for Canada. He will also act as nautical adviser of the Department of Marine, and as a commissioner to enquire into any shipping casualties that may occur in Canadian waters.

J. Porteous, who was connected with the G.T.R. freight service for about 40 years, acting as General Freight Agent from 1877 to 1887, and as General Manager of the National Despatch Fast Freight Line at Boston, Mass., to 1896, when he retired from active service, died recently in Boston.

M. Keenan, Bridge Inspector Canadian Northern Ry., died in Winnipeg Feb. 9, as the result of injuries received in an accident on the

line at Marchand some days previously. He had charge of the bridges on the Northern Pacific lines in Manitoba before they were transferred to the Canadian Northern.

Capt. P. M. Campbell, who has been engaged in the steamship trade from Collingwood, Ont., in connection with the Great Northern Transit Co., and its successor, the Northern Navigation Co., for over 30 years, is retiring. During his lake service he has had command of the steamers Francis Smith, Northern Queen, Manitoulin, Atlantic, Pacific and Germanic.

A. Shields was presented with a silver tea service by the C.P.R. engineers and firemen at Winnipeg, and an onyx and gold clock by the employees of the C.P.R. roundhouse, on his resigning the position of locomotive foreman in the C.P.R. service at Winnipeg to become Master Mechanic of the Canadian Northern Ry. at Winnipeg.

W. M. Kirkpatrick, who was recently appointed Assistant General Freight Agent Pacific Division C.P.R., was unable to go to Vancouver to assume his new duties on Jan. 1, as he had to undergo an operation in Toronto General Hospital early in Jan. He made a very satisfactory recovery and entered on his duties at Vancouver early in Feb.

J. U. Shepherd, who is said to have been Purchasing Agent for Mackenzie, Mann & Co. during the construction of the Ontario and Rainy River Ry., has filed a petition in bankruptcy at St. Paul, Minn., with debts amounting to \$8,654 and assets of \$70. The only debt is a judgment and costs obtained by Miss A. A. Armit, of Fort Frances, Ont., for breach of promise of marriage.

W. P. Dempsey, who has been appointed Travelling Agent of the Chicago and North Western Ry. at Toronto, was born at Belleville, Ont., Nov. 3, 1871, and entered railway service in May, 1896, as clerk in the office of the General Agent Great Northern Ry., U.S., at Toronto, and from May, 1899, to Jan. 16, 1902, was clerk in the office of the General Agent Chicago and North Western Ry. at Toronto.

A Moncton, N.B., dispatch says the following increases in salary dating from Jan. 1 have been granted on the Intercolonial Ry.: J. E. Price, General Superintendent, increased from \$2,400 to \$3,000 a year; Y. C. Campbell, District Superintendent, New Glasgow, from \$1,800 to \$2,-



TRANSPORTATION IN THE FAR NORTHWEST.

Hudson's Bay Company's Indian tripmen and voyageurs.

ooo; E. Price, District Superintendent, Campbellton, from \$1,700 to \$1,980; W. A. Dube, District Superintendent, Riviere du Loup, from \$1,800 to \$2,100; G. M. Jarvis, District Superintendent, Truro, from \$1,800 to \$2,100.

Nathan Pushie, who has been appointed Local Superintendent of the I.C.R. at the Strait of Canso, N.S., was born at Antigonish, N.S., May 3, 1853, and entered railway service Feb. 14, 1873, since which his record has been: Feb., 1873, to Sept., 1876, brakeman I.C.R.; Sept., 1876, to Dec., 1880, conductor I.C.R.; Dec., 1880, to June, 1886, conductor Halifax and Cape Breton Ry. He retained this position when the H. and C.B.Ry. was taken over by the I.C.R., until his present appointment Jan., 1903.

H. W. Brodie, who has been appointed Assistant General Passenger Agent of the Western Division of the C.P.R. at Winnipeg, was born at Fredericton, N.B., June 8, 1874, and entered railway service Jan. 1, 1895, as junior clerk and stenographer in the C.P.R. passenger department at St. John, N.B. He was moved to the Boston office in July, and came to the Toronto office in August in the same year as stenographer to the Assistant General Passenger Agent, acting in that capacity until Feb., 1898, when he was appointed chief clerk in the same office. In Oct., 1899, he was transferred to Winnipeg as chief clerk to the General Passenger Agent of the Western Lines.

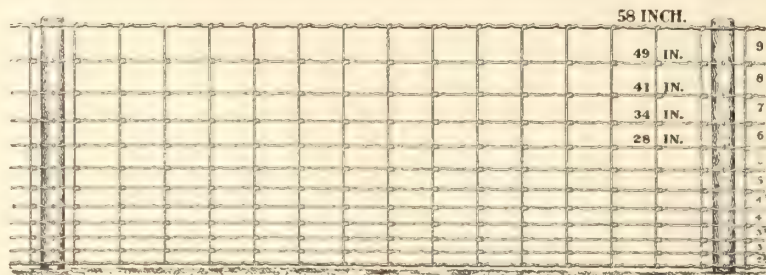
W. P. Hinton, who has been appointed General Freight and Passenger Agent of the Canada Atlantic Ry., was born at Hintonburg, Ont., Aug. 30, 1871, and was educated at Ottawa Collegiate Institute. He entered railway service May, 1887, and was consecutively to Aug., 1891, clerk freight, passenger and car accounts and travelling auditor Canada Atlantic Ry.; Sept., 1891, to Mar., 1898, rate clerk, general freight and passenger departments, same road, and accountant Canada Atlantic Fast Freight line; April, 1898, to June 30, 1901, Assistant General Freight Agent, same road, and Canada Atlantic Transit Co.; June 30, 1901, to Jan. 30, 1902, General Freight Agent, same road.

A. E. Cox, who has been appointed storekeeper of the Canadian Northern Ry. at Winnipeg, Man., was born at Huddersfield, Eng., Mar. 12, 1863, and entered railway service in 1883, since which his record has been: 1883 to 1887, timekeeper on Western Division C.P.R. at Moose Jaw, Assa., and other points; Mar., 1887, to Mar., 1893, chief clerk stores department Manitoba and Northwestern Ry.; Mar., 1893, to May, 1900, when the M. and N.W. Ry. was absorbed by the C.P.R., storekeeper; July, 1900, to Jan., 1902, Assistant to Superintendent of Construction Ontario and Rainy River section of Canadian Northern Ry.; Jan., 1902, to Jan., 1903, chief clerk stores department C.N.R. at Winnipeg.

G. H. Hedge, who has been appointed locomotive foreman, Canadian Northern Ry., at Port Arthur, Ont., was born at Neath, Glamorganshire, Wales, May 26, 1865, and entered railway service, 1879 as letter boy in the mechanical department of the Great Western Ry., at Neath, and learned his trade as a fitter in that company's shops there, coming to Canada in 1884, since which his record has been: Mar. 1884 to 1887, fitter, Ottawa shops, C. P. R.; 1887 to 1891, leading fitter, Ottawa shops; 1891 to 1893, foreman at Megantic, Que.; April 1893 to 1895, locomotive foreman, Windsor st. station, Montreal; 1895 to 1897, general locomotive foreman, Farnham, Que.; 1897 to 1900, locomotive foreman Medicine Hat, Assa.; 1900 to Jan. 1903, locomotive foreman, Brandon, Man., entire Canadian service with C. P. R. up to present appointment.

Kennet W. Blackwell, who has been elected President of the Canadian Society of Civil Engineers, was born in Wiltshire, Eng., July

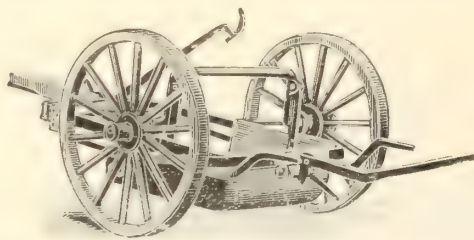
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Special Steel ✱ Special Treatment ✱ Special Galvanizing ✱ Extra Heavy Wire ✱ Perfect Hinge Joints ✱ Tension Curves amply provide requisite elasticity to successfully combat varying temperature. "AMERICAN" FENCES have a world-wide reputation; quality the best. ✱ Write to us and we will save you money. : : :

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CAMMELL'S MARION RODGER
STEEL STEAM BALLAST
RAILS. SHOVELS. CARS.

BARRETT TRACK JACKS.
TRACK TOOLS.

CANADIAN SALES AGENT:

JAMES COOPER, - Montreal.

16, 1850, and came to Canada in 1857. He was educated at Bishop's College, Lennoxville, Que., and in England, and took up the study of mechanical engineering at the age of 17, spending five years in the drawing office of the G.T.R. shops at Montreal, since which his record has been: 1872 to 1875, shop foreman G.T.R. shops, Montreal; 1875 to 1879, Assistant Mechanical Superintendent G.T.R.; 1879 to Sept., 1881, Mechanical Superintendent Chicago and Grand Trunk Ry.; 1881 to 1883, Superintendent Locomotive and Car Department C.P.R., at Montreal. In 1883 Mr. Blackwell retired from that position to enter business in connection with the manufacture of railway supplies in Montreal. He is now President and Managing Director of the Canada Switch and Spring Co., which employs some 700 men in the manufacture of steel goods, many of which are of a very important and interesting nature from an engineering point of view. He is also a director of the Montreal Street Ry. Co.

TRANSPORTATION APPOINTMENTS.

Canada Atlantic Ry.—W. P. Hinton, heretofore General Freight Agent, has been appointed General Freight and Passenger Agent.

M. J. Horsey, heretofore draughtsman in the Canadian locomotive works at Kingston, Ont., is reported to have been appointed chief draughtsman for the C.A.R. at Ottawa.

Canadian Northern Ry.—E. Langham, of Mackenzie, Mann & Co.'s staff, has been appointed Purchasing Agent. Office at Winnipeg.

G. H. Hedge, formerly C.P.R. locomotive foreman at Brandon, has been appointed locomotive foreman of the C.N.R. at Port Arthur, Ont., succeeding J. W. Blythe, resigned.

J. Riordan, heretofore C.P.R. roadmaster at Winnipeg, is reported to have been appointed C.N.R. roadmaster.

E. W. Warner, heretofore C.P.R. local freight agent at Winnipeg, has been appointed C.N.R. local freight agent at Winnipeg.

Canadian Pacific Ry.—A. H. Harris, who recently resigned his position as General Traffic Manager of the Quebec Southern Rd., is reported to have received an appointment in the C.P.R. freight department, but no announcement has been made as to the position he has been given. Enquiry at his residence in Montreal recently elicited the information that he had gone to the Pacific coast and was not expected to return until early in April. The Edmonton, Alta., Bulletin says he arrived there Feb. 19 in company with Superintendent Niblock, of the C.P.R., and remained over "to get certain information which the C.P.R. officials require."

W. B. Brown, heretofore Chief Train Dispatcher at St. John, N.B., has been appointed Trainmaster there.

W. Noble, heretofore dispatcher at St. John, N.B., has been appointed Chief Train Dispatcher there.

W. C. Casey, heretofore ticket clerk at Halifax, N.S., has been appointed Travelling Passenger Agent, with headquarters at St. John, N.B.

H. W. Brodie, chief clerk, General Passenger Agent's office, Winnipeg, has been appointed Assistant General Passenger Agent, Western division. Office at Winnipeg.

G. A. Walton has been appointed chief clerk, General Passenger Agent's office, Winnipeg.

R. Kay, heretofore of the Paymaster's office at Winnipeg, has been appointed Cashier of the Western division, succeeding H. B. Bridges, appointed Local Treasurer, Western division.

H. Sullivan has been appointed local freight agent at Winnipeg, vice E. W. Warner, who

has been appointed local freight agent of the Canadian Northern Ry. at Winnipeg.

J. Riordan, heretofore roadmaster at Winnipeg, is reported to have resigned to enter the Canadian Northern Ry. service.

S. Newmarsh has been appointed locomotive foreman at Winnipeg, vice A. Shields, resigned to enter the Canadian Northern Ry. service.

S. J. Hungerford, heretofore general foreman at Revelstoke shops, has been appointed Acting Master Mechanic west of Broadview, Assa. Office at Calgary, Alta.

H. J. L. Roberts has been appointed general foreman of the shops at Revelstoke, B.C.

The office of Assistant Superintendent of Sleeping, Dining and Parlor Cars and Hotels, at Winnipeg, heretofore held by W. Pratt, Jr., has been abolished.

W. Bell has been appointed District Superintendent of Sleeping, Dining and Parlor Cars and Hotels for the Western division. Office at Winnipeg.

R. J. Cherry has been appointed Division Superintendent of Sleeping, Dining and Parlor Cars and Hotels for the Pacific division. Office at Vancouver.

J. Sparks, heretofore chief clerk in the general baggage department at Vancouver, has been appointed chief clerk in the same department at Winnipeg, vice J. Langlois, resigned.

F. E. Quinn, heretofore chief clerk in the general baggage department, Montreal, has been appointed chief clerk in the same department at Vancouver, vice J. Sparks, transferred to Winnipeg.

R. E. Larmour, heretofore station agent at Port Arthur, has been appointed Assistant Freight Claims Agent of the Pacific division, exclusive of lines south of Arrowhead. Office at Vancouver, B.C. All claims for lost and damaged freight which have hitherto been submitted by agents on the Pacific division to the Vancouver office of the General Claims Agent for Western lines, W. H. D'Arcy, and all reports in relation to freight short, over, damaged, unclaimed and refused, should hereafter be sent to Mr. Larmour.

Since this circular was issued a further change has been made as follows: W. H. D'Arcy, has been appointed Claims Agent Western division, comprising main line and branches west of Port Arthur to Laggan and Kootenay Landing. Office at Winnipeg.

R. E. Larmour has been appointed Claims Agent of the Pacific division, comprising main line and branches west of Laggan and Kootenay Landing. Office at Vancouver, B.C.

Grand Trunk Ry.—J. R. Stephens has been appointed Assistant Chief Engineer. Headquarters at Montreal. He will have direct charge of surveys and preliminary work on new lines.

W. W. Ashald has been appointed Superintendent of Telegraph, with office at Montreal. He will have charge of the telegraph and telephone service of the Co. He will give special attention to the issue and handling of telegraphic train orders and will frequently visit the several train dispatching and telegraph offices and inspect the work and records. He will keep a record of the service of all operators and employes, and approve all applications for employment in the telegraph department. Operators will send to him on the 7th, 14th, 21st and last day of each month their office copies of all train orders received during the preceding period. If no orders, report to that effect will be sent.

W. D. Hall has been appointed Electrical Engineer. Headquarters at Montreal.

C. W. Johnston has been appointed Travelling Passenger Agent, with headquarters at Montreal, vice W. H. O'Donnell.

J. H. Dull has been appointed Trainmaster 4th and 5th districts, with headquarters at

Montreal, vice W. W. Ashald, assigned to other duties.

W. Holmes has been appointed Assistant Trainmaster, 7th district. He will report to and receive instructions from U. E. Gillen, Trainmaster, and will have charge of matters pertaining to transportation. Office at Belleville, Ont.

The following agents have been installed: Bryson's, Que., W. D. Cairns; Barrington, Que., F. T. Clayland; West Bay City, Mich., A. B. Covey; Royal Oak, Mich., C. R. Cox; Owosso, Mich., J. H. Aldrich; Gooding, Mich., A. Speirs.

J. Nichol, station agent at Brantford, Ont., has resigned and has been succeeded by G. A. Stokes, of Wiarton.

Great Northern Ry., U.S.—J. F. Stevens, heretofore General Manager and Chief Engineer, has resigned.

A. H. Hogeland, heretofore Assistant Chief Engineer, has been appointed Chief Engineer. Office at St. Paul, Minn.

Intercolonial Ry.—Press reports recently stated that Kemp Stewart had been appointed Chief Train Dispatcher for Sydney district. We are advised that he has been located at Sydney temporarily.

Lake Erie and Detroit River Ry.—Consequent on the purchase of this line by the Pere Marquette Rd., W. Woollatt, heretofore General Manager, has been appointed General Superintendent; O. McKay, heretofore Chief Engineer, has been appointed Division Engineer, and S. Austin, heretofore Mechanical Superintendent, has been appointed Master Mechanic. Offices at Walkerville, Ont. Dr. McKillop is reported to have resigned his position as Surgeon.

Michigan Central Rd.—H. J. Broderick has been appointed Ticket Accountant, with office at Detroit, Mich., vice L. D. P'Pool, resigned.

A. G. Dailey, Superintendent of Tracks at Detroit, Mich., has retired after a service of fifty-three years with the Co.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—W. L. Martin, heretofore General Freight Agent, has been appointed Freight Traffic Manager.

Montreal Street Ry.—J. C. Kennedy, Superintendent of the M.S.Ry. and the Montreal Park and Island Ry., has resigned and is succeeded by L. Robinson, formerly Superintendent of the M.P. and I.Ry., and latterly Assistant Superintendent of the M.S.Ry. and the M.P. and I.Ry.

Niagara Navigation Co.—John Foy, heretofore General Manager, has been elected President, vice J. J. Foy, resigned. B. W. Folger has been appointed Manager. R. H. McBride, who is a director and heretofore has been Auditor, has been appointed Passenger Agent and Treasurer. J. M. Sullivan has been appointed Secretary.

Northern Navigation Co. of Ontario.—C. Cameron has been elected Vice-President; C. T. Long has been appointed Manager; W. Askin remains Assistant Manager of the Northwest Transportation Co. at Sarnia, and A. B. Pratt remains Assistant Manager of the N.N. Co. at Collingwood.

Orford Mountain Ry.—H. C. Cleveland, who has been succeeded as General Superintendent and General Freight and Passenger Agent by A. C. Lytle, retains his position as Chief Engineer. Office at Kingsbury, Que.

Pere Marquette Rd.—A. M. Smith has been appointed General Superintendent, vice S. T. Crapo, resigned. Office at Detroit, Mich.

A. L. Sanger has been appointed Purchasing Agent. Office, Detroit, Mich.

J. E. Williams has been appointed Chief of Tariff Bureau, to whom all correspondence

pertaining to tariffs and percentage divisions should be addressed.

Quebec Southern Ry.—A. H. Harris, having resigned to accept service with another company, the position of General Traffic Manager is abolished. All correspondence on traffic matters must be addressed to C. S. Papps, acting Assistant General Freight and Passenger Agent, Montreal.

Rutland Rd. — Rutland Transit Co.—Ogdensburg Terminal Co.—F. Owen has been appointed general agent of these companies, with headquarters at Ogdensburg, N.Y. The traffic and operating departments at Ogdensburg will be directly under his charge. He will continue in charge of lake and rail traffic under the direction of the General Freight Agent, and will perform such other duties as may be assigned him by the General Manager. Correspondence pertaining to claims, heretofore addressed Mr. Owen, will hereafter be addressed G. Cassidy, General Freight Agent, Rutland, Vt. The office of Assistant General Freight Agent, in connection with lake and rail traffic, is abolished.

St. Thomas, Ont., St. Ry.—The city council, which is operating this line, has appointed C. Johns, heretofore of London, Ont., as Electrician and Manager at a salary of \$65 a month.

Sherbrooke, Que., St. Ry.—F. E. Smith, heretofore Superintendent, has resigned. The duties are being performed by General Manager Denio.

Spokane Falls and Northern Ry.—G. H. Emerson has been appointed Superintendent of Motive Power, with entire charge of the mechanical department. Office, St. Paul, Minn.

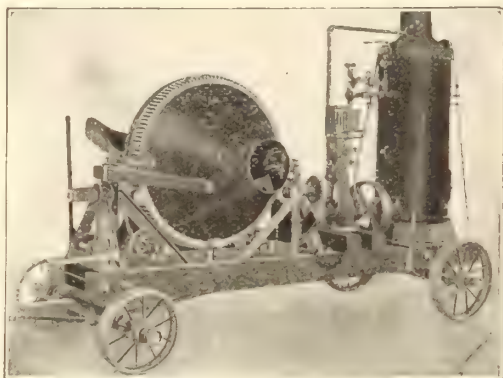
The N. L. Piper Railway Supply Co., Toronto, successors to the old firm of Noah L. Piper & Son, has issued an up-to-date illustrated catalogue of standard railway lamps, ship lamps, patent railway signals and general steam and electric railway and ship supplies, many of the articles being the invention of the President, E. S. Piper, who is well and favorably known to transportation officials throughout Canada.

Grand Trunk Ry. Betterments, Etc.

Portland, Me., Station and Offices.—The new station and freight office building is expected to be completed by April 1. Work is being rapidly pushed forward by the contractor, J. W. Burrows. (Dec., 1902, pg. 403.)

An office building 92 ft. long, 45 ft. wide, and 33 ft. high, has recently been completed in connection with the shipping business. The steamship companies and the customs officers are given rooms on the ground floor, and the upper floor is entirely devoted to railway officials.

Montreal Shops.—Recent press reports stated that concurrently with the enlargement of the repair shops at Stratford, Ont., the shops at Point St. Charles would be enlarged and devoted entirely to building locomotives. In connection with the report the residents of Laprairie, Que., offered the Co. a free site for the erection of locomotive shops, if new ones were to be laid out. No official announcement has been made in reference to any proposed enlargement of the shops at Montreal, but the Assistant to the 2nd Vice-



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COMPLETE WITH ENGINE AND BOILER.

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IS COMPACT, PORTABLE, EASY TO OPERATE, REQUIRES
FEW DUPLICATES, AND HAS NO MOVING PARTS IN THE
MIXING DRUM. — CAN BE SUPPLIED IN 5 SIZES,
OPERATED BY STEAM, ELECTRICITY, GASOLINE, OR
HAND POWER, AND

IS THE BEST MIXER FOR RAILROAD WORK

SUCH AS CULVERTS, PIERS, PLATFORMS AND
FOUNDATIONS.

W. H. C. MUSSEN & CO., Montreal, P.Q.

**INTERCOLONIAL
RAILWAY**

**EUROPEAN "MARITIME
MAIL SERVICE THE
SERVICE EXPRESS"**

CANADA'S FAMOUS TRAIN

Leaving Montreal (Bonaventure Depot) 12.00 noon Sunday,
carrying the English Mail, lands

Passengers, Baggage and Mail

alongside the Royal Mail Steamships at Halifax the following
Monday evening.

**INTERCOLONIAL
RAILWAY**

**FAST
FREIGHT
TRAINS**

VIA



RUNNING DAILY BETWEEN

**MONTREAL, QUEBEC, ST. JOHN,
HALIFAX and the SYDNEYS**

Give every satisfaction to shippers

President, in an interview, stated that Montreal would always remain the location of the principal shops of the Co. The successful carrying out of the projected G. T. Pacific Ry. will probably have an important bearing on the matter.

Kingston Subway.—The Railway Committee of the Privy Council has ordered the construction of a subway under the tracks at the Montreal st. crossing, just outside Kingston, Ont. The Co. will have to bear the expense of the subway, about \$25,000, and the city of Kingston and the county of Frontenac the cost of the approaches, \$5,000. The Kingston city council is not satisfied with the arrangement, and is making application to the Railway Committee of the Privy Council to have the question reopened. (Dec., 1902, pg. 403.)

Toronto Yard Accommodation.—Plans have been prepared for the extension of the yards at Toronto, and laying out the site of the old Parliament buildings as additional yard accommodation. Negotiations are going on with the city authorities with a view of obtaining rights across certain streets between the present tracks and the old Parliament buildings and adjacent thereto. (Dec., 1902, pg. 405.)

Magnetawan River Ry.—The official inspection of this line from Burk's Falls to the Magnetawan river at the wharf, 1.32 miles, was recently made by R. McCallum, Inspector for the Ontario Department of Public Works, and a certificate permitting its operation was given. Freight is being moved over it.

Collingwood Improvements.—A number of additional sidings have been constructed at Collingwood, Ont., and press reports say other improvements are contemplated, with a view of shortening the run between Toronto and Collingwood.

Burlington Swing Bridge.—The swing bridge over the canal at Burlington beach, Ont., on the old Northwestern line, is being reconstructed.

Hamilton Improvements.—The Co. and the city council have reached an agreement respecting the matters in regard to which the council desired to obtain an order from the Railway Committee of the Privy Council. Under the agreement the Co. has permission to connect its main line and the old Northwestern railway near Strachan st., where the Co. will construct sidewalks and jointly with the council will construct bridges over the line at Ferrie st. and at Wellington st. A by-law confirming this agreement has been passed.

Hamilton-Niagara Falls Double-tracking.—The double track between Hamilton and Niagara Falls, Ont., has been finished with the exception of the bridgework at Twelve Mile creek, and over the Welland canal. The Twelve Mile creek is situated about two miles east of St. Catharines, and work on this was somewhat delayed owing to a fire at the tool house of the bridge building company, which caused some \$10,000 damage. The track is laid up to the bridge, and pending its completion the single track is being used between St. Catharines and Merriton. The Welland canal will be crossed by a double-track swing bridge. A temporary single track bridge has been erected, and is in use for east bound traffic, west bound trains going through the tunnel under the canal. When the bridge is completed the tunnel will be abandoned, except in cases of emergency. These two bridges are expected to be completed early in the spring. (Dec., 1902, pg. 405.)

Brantford Deviation.—The right-of-way for the deviation from Lynden to the Harrisburg branch, has been fenced in, and some grading had been done when the condition of the weather brought about a suspension of operations. The grading is expected to be

completed within a month or six weeks after work is resumed in the spring. (Dec., 1902, pg. 405.)

Brantford Station.—In connection with the bringing of the Niagara Falls-Windsor main line through Brantford, a new station is to be erected there during the summer. The Manager, F. H. McGuigan, recently informed the city council that plans were being prepared, and would be sent to the council at an early date.

Woodstock Station.—The question of a site for the projected new station has not been decided. C. M. Hays, 2nd Vice-President and General Manager, recently had an interview with the city council, but no agreement could be reached. The Co. proposes a site on the south side of the line with a subway, while the city desires to have the station on the north side of the line without a subway.

Stratford, Ont., Shops.—Plans for extending and modernizing the Stratford locomotive repair shops are under consideration, and it is expected that work will be begun on the new buildings in the spring. The plans were prepared under the direction of Master Mechanic Patterson, who recently inspected a number of shops in the U.S. The recent press reports referring to the concentration in Stratford shops of the whole of the repair work of the line, and the consequent erection of large additions to the shops, are said to be somewhat premature, as nothing has been definitely decided on.

The Stratford, Ont., Y.M.C.A. directors have accepted the offer of the Co. of a free site and \$4,500 towards the erection of a new building for the Y.M.C.A. A building was erected in 1898, when the railway branch of the work was taken up, and this has been so successful that a bigger building is required.

Buffalo Grain Elevator.—Press reports recently stated that a steel elevator was to be built at Buffalo, N.Y., at the joint cost of the G.T.R., the Michigan Central Rd., and the Pere Marquette Rd. The M.C.R. management states that other railways are not interested in the project.

Port Huron to Chicago Double Track.—We were recently advised that 172 miles of the double track had been completed between Port Huron and Chicago, and trains were being operated over it. During 1902 the second track was laid 79.43 miles. (Dec., 1902, pg. 407.)

G. T. Pacific Ry.—According to the original notice respecting the application to the Dominion Parliament for an act of incorporation the main line was to be carried to the north of Winnipeg, and a branch was to be constructed into that city. It has since been decided to locate the main line "through or near" Winnipeg, thence westerly and north-westerly through Manitoba and Assiniboia to a point near Prince Albert, Sask.

Apart from the change in the location of the projected line referred to in this notice, nothing has been done, although there has been and is a great deal of newspaper conjecture as to what the intentions of the G.T.R. and those associated with it are. It is suggested in one quarter that the Temiskaming and Northern Ontario Ry. will be acquired from the Ontario Government, and that the Ontario section of the line will be constructed through the great clay belt of the province, north of the height of land, so opening up an entirely new country, and preventing the duplication of the C.P.R. round the north shore of Lake Superior, which would be an expensive and unremunerative piece of line. Another project outlined is the provision of an entirely new port on the Gulf of St. Lawrence for the G.T.R. and the new line, the suggestion being that the G.T.R. will purchase the Quebec Bridge Co.'s undertaking, the charter of the Quebec and New

Brunswick Ry., now under construction from Levis to Connors, on the New Brunswick boundary; the Quebec and Oriental Ry. Co., which is applying for a Quebec charter to construct a railway from Connors to Metapedia, on the Intercolonial Ry.; and the Atlantic and Lake Superior Ry., now in operation from Metapedia to New Carlisle, Que. The latter line has power to extend to Gaspé Basin, but at New Carlisle there is said to be open water sufficient to float the largest Atlantic liners for 10 months in the year, the harbor being closed by ice during Feb. and March in each year. A third and the most recent report was to the effect that the G.T.R. had abandoned the project for an extension to the Pacific. In reference to this statement C. M. Hays is reported to have said: "The rumor is simply ridiculous. There is no truth in it at all. The position in so far as the G.T.R. is concerned is unchanged, and until the necessary legislation is obtained there is nothing else to be said." J. R. Stephens has been appointed Assistant Chief Engineer of the G.T.R., with direct charge of surveys and preliminary work on new lines.

Railway Statistics for 1901-2.

The report of the Department of Railways for the year ended June 30, 1902, states that the number of steam and electric railway companies reporting was 118, with 19,426 miles of railway completed, of which all but 155 were in operation. The paid-up capital of both classes of companies was \$1,140,445,269. The gross earnings were \$90,152,940, working expenses \$61,146,447, and net earnings \$29,006,493. In all 158,361,376 passengers were carried, and 42,642,709 tons of freight. The number of steam railways in operation, including the Government lines, was 165, but some of these are amalgamated or leased, so that the actual number of controlling lines, exclusive of the I.C.R. and P.E.I.R., was 79. On June 30, 1902, the completed steam railway mileage was 18,868, an increase of 574 miles, not counting 2,829 miles of sidings. The number of miles laid with steel track was 18,761, of which 647 were double track. The number of miles of railway in operation was 18,714, of which the C.P.R. comprises 7,321 miles; G.T.R., 3,157.48; I.C.R., 1,333.94; Canadian Northern, 1,248.20, and Canada Atlantic, 458.60. The paid-up capital of the steam railways was \$1,098,852,206, an increase of \$56,066,667. The main items of this increase were:—Canadian Northern, \$19,810,480; C.P.R., \$9,345,156; G.T.R., \$2,996,558; Intercolonial, \$4,670,590. The gross earnings of all the steam lines were \$83,666,502, a gain of \$10,767,574. The working expenses were \$57,343,592, an increase of \$6,974,866, leaving net earnings \$26,322,911, an increase of \$3,792,888. The number of passengers carried was 20,679,974, an increase of 2,294,252, and the freight traffic was 42,376,527 tons, a gain of 5,377,156. The total number of miles run on trains was 55,729,856, an increase of 2,380,402. The aggregate rolling stock was 78,891 cars, of which 58,111 were equipped with air brakes, and 66,882 with automatic couplers, a gain of 5,748. The locomotives numbered 2,444.

The accident returns show 1,328 persons injured during the year. Of these 176 were passengers, 932 employees and 220 others. Three hundred and thirty persons were killed, 19 being passengers, 146 employees, and 165 others. Forty-two passengers, 70 employees, and 32 other persons were injured, and five passengers, 11 employees, and five others were killed through jumping on or off trains or engines when in motion. Fifty-four employees and 84 other persons were injured, and 36 employees and 106 other persons were killed through walking or being on the track. Thirteen passengers, 156 employees and nine others were

injured, and four passengers, 21 employes and five others were killed through falling from cars or engines. Two employes and 58 other persons were injured, and one passenger, one employe and 39 other persons were killed by being struck by engines or cars at railway crossings. The accidents due to the work of coupling cars were 241 (15 being fatal), against 290, 363, 355 and 343 in the four preceding years.

Of electric railways there were 558 miles completed, of which 553 were laid with steel rails, 169 miles being double track. The paid-up capital was \$41,593,063, of which the municipal aid amounted to \$173,000 (including \$100,000 subscriptions to shares and \$40,000 loans). The gross earnings were \$6,486,438, an increase of \$718,155, working expenses \$3,802,855, an increase of \$367,692, and net earnings \$2,683,583, an increase of \$350,463. The number of passengers carried was 137,681,402, an increase of 16,744,746, and the freight carried was 266,182 tons, a decrease of 21,744. The car mileage was 35,833,841 miles, an increase of 4,083,087. Eight persons were killed. Power was supplied in 13 cases by water, and in 27 cases by steam.

Ontario has 334 miles; Quebec, 140; New Brunswick, 12; Manitoba, 13, and British Columbia, 45 miles. One company has ceased operation.

The gross earnings of the Intercolonial Ry. were \$5,671,383, an increase of \$699,150, and working expenses \$5,574,563. Comparing the earnings with those of the previous year, the passenger traffic produced \$1,770,94, or 31.23% of the gross earnings, an increase of \$163,777. The freight traffic produced \$3,624,513, or 64.26% of the gross earnings, an increase of \$523,507, and the carriage of mail and express freights produced \$255,93, or 4.51% of the gross earnings, an increase of \$11,868, and the earnings per mile of railway were \$4,313.92. The working expenses per mile (including the rental of the extension to Montreal) were \$4,240.25, an increase of \$86.81.

A series of biograph pictures taken along the line of the C.P.R. is being utilized for lectures, etc., in Great Britain. For the opening exhibition the C.P.R. invited 1,200 prominent people, among the guests being the Duke of Argyll.

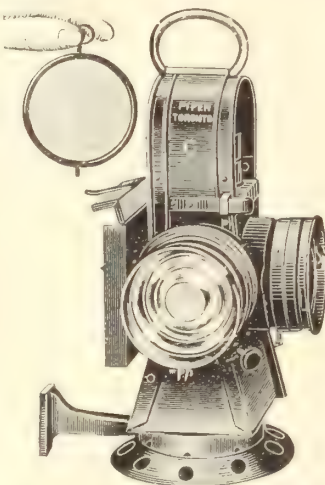
Great Northern Ry. of Canada.

Press reports since the end of Jan. have been current to the effect that Mackenzie, Mann & Co. have purchased the Great Northern Ry. of Canada outright, or that they have acquired a controlling interest in the line, by the purchase of the shares held by Col. J. McNaught, 1st Vice-President; H. H. Melville, 2nd Vice-President, and their associates in the U.S. D. B. Hanna, 3rd Vice-President of the Canadian Northern Ry., was in Quebec, in consultation with G.N. Ry. officials at the end of Jan., and D.D. Mann, Vice-President, joined him on Feb. 7 at Quebec. Whatever arrangement may have been under consideration has not been definitely concluded, but there is no doubt that Mackenzie, Mann & Co. are negotiating in the interests of the Canadian Northern Ry. for a controlling interest in the G.N. Ry.

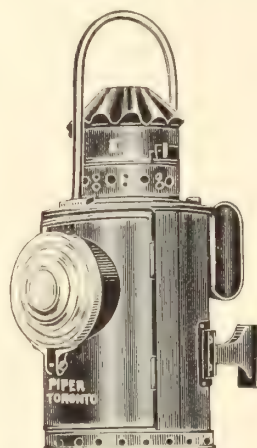
The passing of the G.N. Ry. under the control of Mackenzie, Mann & Co. would have an important effect on the transportation of grain from Manitoba and the Northwest Territories over the Canadian Northern Ry. at the opening of navigation. In 1902 the

THE N. L. PIPER RAILWAY SUPPLY CO., LIMITED — TORONTO —

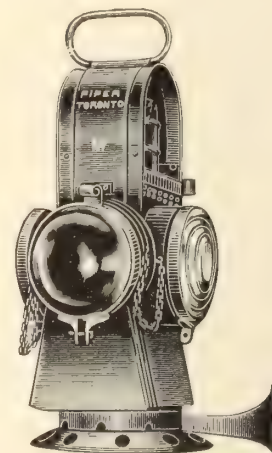
MANUFACTURERS
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(Registered 1902) CLASSIFICATION LAMP



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(Registered 1902) MARKER LAMP

RAILWAY
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ETC

Pintsch System Car and Buoy Lighting.

This Company controls in the United States and Canada the celebrated Pintsch System of Car and Buoy Lighting. It is economical, safe, efficient, and approved by the railway managers and Lighthouse Board of the United States and Canada, and has received the highest awards for excellence at the World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta and Buffalo. 112,000 cars, 4,500 Locomotives and 1,250 Buoys are equipped with this light. 160 Railroads in the United States and Canada have adopted this system of lighting, applied to over 19,000 cars.

Car Heating.

This Company's Systems have been adopted by 120 of the principal Railroads of the United States and by the great Sleeping Car Company. They consist of The Steam Jacket System of hot water circulation, The Direct Steam Regulating System and Straight Steam (plain piping).

Automatic Steam Couplers. Straight Port Type.

THE SAFETY CAR HEATING and LIGHTING CO.,

General Offices: 160 Broadway, New York.

Branch Offices: Chicago, 1017 Monadnock Building - - - St. Louis, 1015 Union Trust Building.
Montreal, Stock Exchange Building.

C.N.R. carried grain to its elevator at Port Arthur, from which point it was shipped by lake carriers to eastern points, and reached the ocean-going vessels over different routes. In Oct. the Canadian Lake and Ocean Navigation Co., in which Mackenzie, Mann & Co. are interested, put four steamers of the turret type on the upper lakes to carry grain from Port Arthur to Georgian bay ports. By making Depot Harbor the Georgian bay terminal of the steamship line on the opening of navigation this year, the grain could be handed over to the Canada Atlantic Ry., with which the G.N.R. has a traffic arrangement, and carried to Hawkesbury, Ont., where it would be handed over to the G.N.R. carried to Quebec, and shipped to Great Britain by the steamers of the Leyland line, one of the lines owned by the International Mercantile Marine Co. of New York, which has contract arrangements with the G.N.R. Or the grain might be handed over at Quebec to the Canadian Lake and Ocean Navigation Co., in which Mackenzie, Mann & Co. are interested, and which it is understood will add ocean-going vessels to its fleet this year.

The G.N. Ry. owns 169.38 miles of main line from Hawkesbury, Ont., on a branch of the Canada Atlantic Ry., to Rivière à Pierre, on the Quebec and Lake St. John Ry., with 5.72 miles of branch lines; it has running powers over the Quebec and Lake St. John Ry. from Rivière à Pierre to Quebec, 58 miles; and own an elevator and other terminal facilities on the Louise basin, Quebec. It has lately acquired the Montford and Gatineau Colonization Ry. from Montford Jct. to Arundel, Que., 33 miles, which it is proposed to connect with the main line by an extension from St. Sauveur to St. Jerome, 13 miles; and will operate the Chateaugay and Northern Ry., now under construction from Bout de L'Isle to Joliette, 38 miles, which will provide an entrance and terminal facilities in Montreal. Surveys have been made for a cut-off from Garneau Jct. to St. Catharines, Que., 58 miles, and for an extension from Hawkesbury to South Indian, Ont., on the main line of the Canada Atlantic, 38 miles. The subscribed and paid-up capital of the G.N.R. was on June 30, 1901, the date of the last Government report, ordinary shares, \$4,175,000; preferred stock, \$581,625; bonds, \$4,084,000; the Dominion, Provincial, and municipal subsidies paid amounted to \$2,066,244.77, and there was a floating debt of \$138,196.17. The Co.'s annual report for the year ended June 30, 1902, showed gross earnings, \$524,763; operating expenses, \$316,801; net earnings, \$207,963; 5% bonds outstanding, \$4,040,000; equipment bonds outstanding, \$300,000, the interest and sinking fund for which is provided out of a special fund. The Montford and Gatineau Colonization Ry. had on June 30, 1901, a paid-up capital of \$18,317, a bonded debt of \$231,000, and a floating debt of \$287,748.76.

When this was written, on Feb. 25, the negotiations had not been closed, and the matter was being held open pending the return from England of W. Mackenzie, who was expected to reach Toronto about Mar. 1.

The Hiram L. Piper Co., of Montreal, has issued its calendar for 1903. The different lines of railway and shipping supplies handled are mentioned, but the attractive feature of the calendar is the portrait of Advance Guard, a celebrated horse owned by J. Carruthers, the President of the Company.

The U.S. House of Representatives has passed the Senate bill providing for the erection of a union railway station in Washington, D.C., at a cost of \$4,000,000. The members of the Canadian Ticket Agents' Association who visited Washington recently were considerably surprised at the shabby and inconvenient Baltimore and Ohio station at which they landed.

International Mercantile Marine Co.

A circular has been issued announcing the personnel of the reorganized staffs of the various steamship companies which have been merged into the I.M.M. Co., as follows:

Corporate Organization—President, C. A. Griscom; Vice-President in Great Britain, Sir C. E. Dawkins; Vice-President in America, P. A. S. Franklin; Treasurer, J. S. Swartz; Assistant Treasurer, J. F. Fahnestock, Jr.; Secretary, E. E. Parvin; Assistant Secretary, J. J. Hope; Assistant to the President and Manager Insurance Department, R. E. Griscom; Comptroller, M. W. Tingley; General Counsel, F. L. Stetson.

White Star Line—Organization for conducting business: Chairman and Managing Director, J. B. Ismay, Liverpool; General Manager, H. A. Sanderson, Liverpool; Assistant Manager, American trade, H. Concanon, Liverpool; Assistant Manager, Colonial trade, L. Fletcher, Liverpool; Freight Manager, J. Whiting, Liverpool; Saloon Manager, A. B. Cauty, Liverpool; Second and Third Class Manager, J. W. Thompson, Liverpool; General Agent, United States, J. Lee, New York; Cabin Passenger Agent, New York, D. D. Wierpelt; Second Cabin Passenger New York, J. B. A. Hostage; Steerage Passenger Agent, S. S. Cortis.

American and Red Star Lines—Organization for conducting business: General Manager, C. A. Griscom, Jr., New York; Manager Freight Department, S. Bettie, New York; Manager Passenger Department, J. A. Wright, New York (especially charged with management of first cabin and second cabin business); Assistant Manager Passenger Department, A. S. Anderson, Philadelphia (specially charged with management of third class business); Manager American Line in Europe, H. Wilding, Liverpool; Assistant Manager American Line in Europe, J. E. Willett, Liverpool; Assistant Manager American Line in Europe, P. E. Curry, Southampton; Manager Red Star Line in Europe, E. Strasser, Antwerp; Manager Pacific coast, G. H. Higbee, San Francisco; Cabin Passenger Agent, New York, J. M. Kirk; Steerage Passenger Agent, New York, A. Lederer.

Atlantic Transport Line—Organization for conducting business: President and General Manager, P. A. S. Franklin, New York; Manager, New York, J. H. Thomas; Manager, Philadelphia, P. F. Young; Manager, Baltimore, J. C. C. Gorman; Manager in Europe, C. F. Torrey, London; Passenger Agent, New York, H. L. Mead.

Leyland Line—Organization for conducting business: Chairman, H. Wilding, Liverpool; Managing Director, W. Glynn, Liverpool; General Manager, H. B. Roper, Liverpool; Manager, Boston, G. Bray; Agent, New Orleans, M. J. Sanders; Manager and Agent, Montreal, J. Torrance; Assistant Manager, Montreal, J. Thom; Manager and Agent, Quebec, W. M. MacPherson; Manager and Agent, Portland, J. Torrance, Jr.

Dominion Line—Organization for conducting business: Chairman and Managing Director, H. Wilding, Liverpool; Manager, J. E. Willett, Liverpool; Manager, Boston, C. P. Jameson, Manager, Montreal, J. Torrance; Manager, Quebec, W. M. MacPherson; Manager, Portland, J. Torrance, Jr.

Advisory committees in America—Freight committee: S. Bettie, Chairman, New York; A. C. Fetterolf, Assistant to Chairman, New York. Passenger committee: J. A. Wright, Chairman, New York; W. W. Jeffries, Assistant to Chairman, New York.

Freight agents of the several companies: Chicago, W. E. Lawrence, Western Freight Agent; Chicago, W. G. Sickel, Assistant Western Freight Agent; Minneapolis, T. O. Martin, Freight Agent.

Passenger Agents of the several companies: Boston, F. O. Houghton, Cabin Passenger Agent; Boston, R. H. Farley, Steerage Pas-

senger Agent; Philadelphia, George H. Stuart, Jr., Passenger Agent; Washington, D. Lindsay, Passenger Agent; Toronto, C. A. Pipon, Passenger Agent, Ontario; Chicago, F. C. Brown, Western Passenger Agent; San Francisco, C. D. Taylor, Passenger Agent, Pacific coast; St. Louis, R. E. M. Bain, Southwestern Passenger Agent.

In connection with the above it may be mentioned that C. A. Pipon, heretofore General Agent for Ontario for the White Star line, is now Passenger Agent for Ontario, and sole agent for Toronto for the White Star, American, Red Star, Atlantic Transport and Leyland lines. He has taken a handsome and convenient office on the ground floor of the King Edward Hotel, 41 King St. East, Toronto. W. A. Webster, heretofore agent at Toronto for the Dominion line, has been appointed local agent at Toronto for that line. The other lines were heretofore represented at Toronto as follows:—American and Red Star, Barlow Cumberland; Atlantic Transport, R. M. Melville.

Jno. Torrance, Montreal, will handle the business of all the lines in the I.M.M. Co. for Quebec, Manitoba, the Northwest Territories and British Columbia. The Boston office will have charge of New Brunswick, Nova Scotia and Prince Edward Island.

Profit Sharing on B. C. Electric Ry.

J. Buntzen, General Manager of the B.C. Electric Ry. Co., has supplied the following information:—

"The profit-sharing idea is, of course, not a new one. It has been tried many times before, sometimes successfully, sometimes otherwise. But I am not aware that it has so far been attempted by a street railway company, although this particular class of business appears to offer a specially attractive field for its adoption. The men in charge of the street cars are to a great extent left to their own devices. To supervise their work continually is an impossibility, and even to inspect and check it occasionally requires a distasteful system of espionage. Still, on the spirit in which the men carry out their work hinges the success of the company very largely. I am not sanguine enough to imagine that a participation in profits will immediately change a careless man to a watchful one, and a lazy fellow to a hustler, but I do believe that, given a fair chance to prove what it amounts to, the system will gradually create a partnership feeling in the employees that will eventually make them take the same interest in the company's welfare as they would in their own business, for the simple reason that, having the proof in their pockets, they cannot help realizing that the company's welfare is their business.

"Attempts are being made by parties who do not believe in good relations between employees and employers to belittle the profit-sharing idea by calling it wages sharing, and claiming that it is only granted by employers to get better work out of the men. Certainly, the system is based on the assumption that better and more careful work will be done, and that it will result in benefit to the employer. But if it does, it also benefits the employee, and that is exactly where its strength lies. It is a system of mutual benefit, the only fair method of co-operation. Under the arrangement with our employees we pay them union wages for skilled labor, and best local wages for unskilled labor. If, in addition to getting best local wages for their work, our men receive a substantial cash bonus, it can hardly be denied that they are better off than those who receive no such bonus. And if they have really done better work than some others—with no longer working hours—is that something to reproach them for? Does it not add to the self-respect of any decent man to feel that he is doing his duty well, and that

he is paid not only for the quantity of his work, but also for its quality.

"Shortly, our arrangement is as follows: After the ordinary shareholders have received a 4% dividend the balance of profits available for dividends yearly will be divided as follows: two-thirds to the shareholders, one-third to the employees. Every employee who has worked regularly for the company during the 12 months ending June 30 each year, will participate in the division, and their proportion of the profits will be divided equally among them. Our arrangement being yet in its infancy, it is, of course, impossible to prophesy whether or not it will turn out a success. It is an experiment, heartily approved by our directors, and, I think, also by most of the men. If it is allowed to pursue its even course for three years I will venture to predict it a long and prosperous life.

"The principal cause of friction between employer and employee to-day is undoubtedly lack of mutual understanding and consideration. With proper understanding must come proper consideration. The employee must understand that capital is entitled to fair interest, and the employer must recognize that when he has had that fair interest he owes it to the producers to give them a fair share in the success so largely due to their efforts.

"I may add that we have about 200 regular employees, and that our men have an organization of their own which the management has recognized from its start. So far no differences have arisen that a quiet talk has not been able to adjust, without loss of dignity to either side, and without any break in our friendly relations."

Sir T. G. Shaughnessy, President C.P.R., left Montreal, March 3, for England, expecting to return early in April.

Canadian Pacific Ry. Changes.

Circulars announcing the following changes have been received since "Transportation Appointments" on page 87 were made up:—

The Western division between Port Arthur, Ont., on the east, and Laggan, Alta, and Kootenay Landing, B.C., on the west, will be divided into two divisions on April 1.

The main line and branches between Port Arthur and Pasqua and Estevan will be known as the Central division, with J. W. Leonard, heretofore General Superintendent of the Western division, as General Superintendent.

The main line and branches between Port Arthur and Laggan, and Kootenay Landing will be known as the Western division, with R. R. Jamieson, heretofore Superintendent at Cranbrook, B.C., as General Superintendent.

H. J. Cambie, heretofore Division Engineer Pacific division, has been appointed Special Assistant Engineer, with headquarters at Vancouver, B.C., and duties as assigned.

F. F. Busteed has been appointed Division Engineer Pacific division, vice H. J. Cambie, promoted.

The Pere Marquette Rd. has adopted a new scale of wages for locomotive engineers, after a conference between the General Manager and the men. The scale is: Passenger engineers, $3\frac{3}{4}$ c. a mile; through freight, $3\frac{1}{4}$ c. a mile; local freight, \$4 a day; switch engines, \$2.60 a day of 10 hours. On engines having a cylinder larger than 18 x 24 ins. the rate will be \$4.50 per 100 miles.

The Mexican Light and Power Co. is being organized in Canada, with Sir Wm. Van Horne and J. Ross, of Montreal, and W. Mackenzie, of Toronto, among its directors, to develop power near the city of Mexico.

Appointment of Thomas Tait.

Thomas Tait, Manager of Transportation, C.P.R., at Montreal, has been appointed Chairman of the Board of Railway Commissioners for Victoria, one of the states of the Commonwealth of Australia. The appointment was made on the recommendation of J. Coates, C.E., of Ottawa, who is well known in Melbourne, the capital of Victoria, and who was asked by the Premier to recommend an all-round railway man for the position. Mr. Tait was suggested, and negotiations have been going on since Nov., with the result that the position was formally offered him at the end of Feb., and he accepted it. Sir Thos. G. Shaughnessy said that the offer made Mr. Tait was so flattering that he could only be congratulated on the honor conferred on him. Mr. Tait will leave Montreal in May, for Melbourne, travelling via Vancouver, and the Canadian-Australian line of steamers, to take up the duties of his new office.

The various state governments in the island continent own practically all the railways within their borders, and manage them by boards of commissioners. That for Victoria consists of three members, of whom the chairman has the controlling voice. While each state system of railways is separate, there are a number of points where they touch, and where company owned lines come into competition, but, owing to the fact that the lines are of a variety of gauges considerable difficulty is experienced in handling freight, etc., going from one state to the other. Under the act establishing the Commonwealth, power was given to take over all the railways and operate them as an undertaking for the general benefit of Australia. Nothing has been done in this direction at present, and it is not anticipated that anything will be done for a few years.

JAS. W. PYKE & COMPANY

CANADIAN REPRESENTATIVES

FRIED. KRUPP, ESSEN, GERMANY.

Steel Rails.

Wrought Iron Steel-Tyred Disc Wheels

Locomotive and Car Wheel Tyres.

Axles, Crank Pins, Forgings, Etc.

FOR STEAM AND
ELECTRIC RAILWAYS.

OFFICE: MERCHANTS BANK BUILDING MONTREAL.
205 ST. JAMES STREET,

SIMPLEX BOLSTERS A N D BRAKE BEAMS
SUSEMIHL FRICTIONLESS ROLLER SIDE BEARINGS

THE SIMPLEX RAILWAY
APPLIANCE CO. OF
CANADA, Limited

Offices and Works
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Victoria, while one of the smallest and youngest of the several states of the Commonwealth, is the most important in regard to wealth, population and commerce, and Melbourne, the capital, is not only the largest city on the continent, but is claimed to possess some of the finest public buildings in the world. The great proportion of the population is resident in the cities, the country population being scattered over the great sheep farms in the interior. Wheat and oats are also largely grown, and a large trade in fruit has been built up, whilst Australian wines have obtained a considerable sale in Great Britain. The gold-fields at Ballarat were discovered in 1851, and were responsible for the very rapid growth of the colony. Victoria has an area of 87,884 square miles, about two-thirds the area of Manitoba, of which one-tenth is under cultivation, outside the area leased to the sheep farmers, some of whom have 100,000 acres or more under their control.

The statistics for the Victoria State railways for 1901, give the following particulars: Miles in operation, 3,237. Equipment: 544 locomotives (including 16 building); 1,179 passenger coaches, 302 vans, 9,392 freight wagons, and 227 miscellaneous vehicles. Total number of employees, 11,956. The expenditure on capital account was £40,145,404, equal to £12,402 per mile for construction and equipment. The operations for the year show receipts from passenger traffic, £1,560,894, and from freight traffic, £1,711,894, making £3,337,794, equal to £1,034 a mile. The working expenses were: maintenance of track, £518,488; locomotive power, £646,192; car repairs, £147,153; traffic, £609,000; compensation, £7,945; general, £56,018; total, £1,984,796. The net revenue was £1,353,001, equal to 3.37% on the total capital cost, or 3.64% on the total of loan money expended. The pensions and gratuities amount to £90,443. The train mileage was 11,066,016; passengers carried, 54,704,062; freight carried, 3,155,697 tons; live stock carried, 226,163 tons.

Mr. Tait is a son of Chief Justice Sir Melbourne Tait of Montreal, and was born at Melbourne, Que., July 24, 1864. He was educated at the High School, Montreal, and entered railway service as a clerk in the audit office of the G.T.R., Sept., 1880, since which time his service has been:—July, 1881, to Oct., 1881, clerk in the office of the Assistant to the President, Chicago and G.T. Ry.; Oct., 1881, to April, 1882, clerk in solicitor's office G.T.R., Belleville; April to Oct., 1882, clerk, General Manager's office, same road; Oct., 1882, to Sept., 1886, private secretary to Vice-President and General Manager C.P.R.; Sept., 1886, to May, 1887, clerk, General Traffic Manager's office, same road; May, 1887, to Feb., 1889, Assistant Superintendent, same road, at Moose Jaw, Assa.; Feb., 1889, to Mar., 1890, Superintendent Ontario division, Toronto, same road; Mar., 1890, to Mar., 1893, General Superintendent Ontario and Quebec division, Toronto, same road; Mar., 1893, to May, 1897, Assistant General Manager, same road; May, 1897, to April, 1901, Manager of lines east of Fort William, same road; April, 1901, to Mar., 1903, Manager of Transportation, same road, at Montreal. In 1890, he married Emily St. Aubert, daughter of G. R. Cockburn, Toronto.

F. E. Ward, General Superintendent, has been appointed General Manager Great Northern Ry., U.S.A.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Algoma Central and Hudson Bay Ry.—During 1902 the Co. laid 16 miles of track beyond Ogidaki, carrying the line to within 9 miles of Pangissin. The regular train service is not in operation beyond Ogidaki, but a mixed train is run three times a week to the end of the track.

Under the arrangement with the syndicate of bankers for financing the operations of the Consolidated Lake Superior Co. it is said the line will be completed to a junction with the C.P.R. main line. (Feb., pg. 37.)

Atlantic, Quebec and Western Ry.—The New Canadian Co., which is incorporated under the Companies' Acts of Great Britain, will apply next session of the Dominion Par-

this latter plan will be followed, as the G.T.R. has recently been considering the raising of its tracks at Napanee station several feet in order to reduce a heavy gradient directly east of the town. Some discussion has recently taken place between engineers representing the Department of Railways, the G.T.R., and the B. of Q. Ry. on the matter, and it will be further discussed at an early date before the Railway Committee of the Privy Council.

The Co. deposited plans of this piece of line with the Ontario Government, but they were found to be irregular in several particulars upon examination at the survey branch of the Crown Lands Department, and after some correspondence they were returned to the Co. for correction, etc. (Jan., pg. 19.)

Berlin and Bridgeport Electric Street Ry.—This Co. has in operation 2¼ miles of electric railway, extending from Berlin to Bridgeport, Ont., of which .8 miles is on the Berlin streets and 1.45 on a private right of way. The line is being operated under lease by the Berlin and Waterloo Street Ry. Co., which also constructed the line, the only outside contractor being P. Weber, Berlin. It is proposed to extend the line to Fergus, via Bloomingdale, Conestoga and West Montrose.

Berlin, Waterloo, Wellesley and Georgian Bay Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Berlin, via Waterloo, Wellesley, Glen Allen, Drayton, Mount Forest, and Markdale to Collingwood, Ont., with power to construct branches to Owen Sound and Warton. C. R. Hanning, Ont., is solicitor for the applicants.

Brandon, Saskatchewan and Hudson's Bay Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company with this title to construct a railway from the International boundary, between ranges 23 and 25, west of the principal meridian in Manitoba, via Brandon, Man., and Pas Mission, Sask., to Fort Churchill or York Factory, on Hudson's Bay; from the International Boundary between ranges 16 and 18, west of the principal meridian in Manitoba, north-westerly to a point on Souris river; and from near Brandon to Neepawa, Man., with power to construct branches. Clement and Clement, Brandon, are solicitors for the promoters.

Brockville, Westport and Sault Ste. Marie Ry.—Notice has been given of three applications to be made next session of the Dominion Parliament respecting this Co. In one case the application is said to be in the interests of the judgement creditors, who have taken steps to have the recent sale set aside, and who desire incorporation under the title of the Brockville and Western Ry. (See Feb., pg. 37.) The other two applications are in the interests of the purchasers at the recent sale. In the first of these C. F. Hohn, J. Gerken, V. Schmitt, of New York, and C. P. King, of Philadelphia, Pa., ask to be incorporated under the title of the Brockville and Sault Ste. Marie Ry. Co., and empowered to exercise all the powers conferred in the act relating to the B. W. and S.S.M. Ry., and also for an extension of time to complete the line authorized. In their second application the incorporation of a company to be called the Brockville and North-Western Rd. is asked for, with power to take over the B. W. and



THOMAS TAIT,

Who has been appointed Chairman of the Board of Railway Commissioners for the State of Victoria, Australia.

liament for an act of incorporation, and to enable it to provide terminal facilities at Gaspé Bay, Que. The N.C. Co. will have a capital of \$500,000, and may increase it to \$1,000,000. The Co. controls the charter of the A.Q. and W. Ry.

H. O'Sullivan, C.E., F.R.G.S., is making a preliminary survey from Causapsal, on the I.C.R., to Gaspé Basin, about 270 miles. (Feb., pg. 37.)

Bay of Quinte Ry. The direct line between Deseronto and Napanee, Ont., about 6 miles, has been completed, but trains are not being operated over it, as connection has not been made with the B. of Q. line at Napanee. To do this the G.T.R. main line will have to be crossed, and no arrangement has been announced in this regard. One proposition is to put in a diamond crossing, similar to that at Trenton, where the Central Ontario Ry. crosses the G.T.R. tracks, and another is to construct a subway under the G.T.R. tracks. It is not at all unlikely that

S.S.M. Ry. from J. Gerken and his associates, and to construct a line to the shores of Georgian Bay and Sault Ste. Marie, with branches to Barry's Bay, Mattawa, North Bay, Parry Sound or other points.

Members of the syndicate recently made an inspection of the line, and arrangements are being made for carrying out an extensive scheme of improvement. The work proposed to be done will consist of reducing some of the heavy grades, ballasting the greater part of the line, placing an additional 24,000 ties under the rails, renewing about a mile of track originally laid by the G.T.R., to connect that Co.'s line at Lyn Jct. with Lyn station; lengthening the sidings at Athens, Delta, Elgin, and Westport stations, from 4 to 8 car lengths; putting in a turntable at Brockville, repairing and completing the fences with woven wire fence instead of barbed wire, building snow fences, placing surface cattle guards at all crossings instead of the old pits, rebuilding two small bridges in Brockville yard, reducing the curve and putting an iron bridge over the creek at Lyn, repairing every station on the line, and probably taking down the Brockville station and rebuilding it in a more suitable position, erecting semaphores, switch lamps, and sign boards at all stations. Some preliminary surveys have been made for extensions on behalf of the syndicate, but nothing in the way of construction will be done until after the additional powers are obtained. The first section of the additional lines to be constructed, W. S. Buell, solicitor to the syndicate, says, will be from Westport to a junction with the Canada Atlantic Ry. at Barry's Bay. The syndicate also proposes to establish traffic relations with U.S. lines at Morristown, N.Y., either by a bridge over the St. Lawrence or a ferry. (Nov., 1902, pg. 380.)

The Canada Fish Co. is under an agreement with the Ontario Government either to "build or cause to be built" a railway from the C.P.R. to Lake Nepigon. It is proposed to enter into an arrangement with the Nepigon Ry. Co. to construct the line. Application will be made this year to the Dominion and the Ontario Governments for subsidies. A Mr. Noble, of Nepigon, Ont., and formerly of Collingwood, is one of the chief promoters of the C.F. Co. (Jan., pg. 19.)

Canadian Pacific Ry.—A contract is reported to have been let for double-tracking the line from Fort William to Rat Portage, Ont., 293.5 miles, to Foley Bros. & Co., St. Paul, Minn., who will commence work as soon as the camps can be started. For some three or four years past the Co. has been lengthening its sidings and other crossing places at different points on this section of the line to about a mile in length each, and so arranging them that they would form part of the double-tracking whenever it was decided to undertake it. At the same time the yards at Rat Portage were very greatly enlarged, a 20-stall roundhouse was erected, a modern coal-handling plant put up, and other improvements carried out which would provide for the rapid handling of freight trains at that point. Survey parties have been almost continuously at work on the line between Fort William and Rat Portage since this work was commenced, preparing for the double-tracking, and during the winter experimental freight trains have been run over the line with a view of determining to what extent gradients must be cut down to permit of the handling of such trains. All the data necessary having been obtained, E. H. McHenry, Chief Engineer, made a thorough inspection of the line, and the final plans were prepared and approved. The work will be pretty heavy all through, and will involve a large amount of rock-cutting, some long fills and trestle work. A representative of the contractors is in Win-

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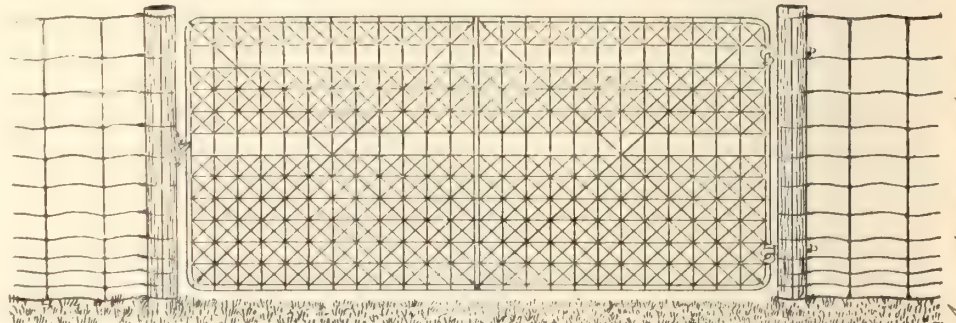
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nipeg engaging men to make an immediate start.

Chatham, Wallaceburg and Lake Erie Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Chatham to Wallaceburg, Ont., from Chatham to the shore of Lake Erie, and from Wallaceburg to Petrolia, Ont., and with power to generate electricity for motive and other purposes. Denton, Dunn & Boulbee, Toronto, are solicitors for the promoters. G. H. Stevens, of Chatham, and W. N. Warburton, formerly with the Niagara, St. Catharines and Toronto Ry., are understood to be among those promoting the Co.

Central Alberta Ry. Co.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Calgary southerly and easterly to Lethbridge, Alta. F. Villeneuve, Montreal, is solicitor for the promoters.

Deloraine to Neepawa, etc.—Application will be made at the current session of the Manitoba Legislature for the incorporation of a company to construct a railway from the International boundary, in range 25 west, via Deloraine, Elgin, Brandon and Neepawa to the northern boundary of the province. Macdonald, Haggart & Whittle, Winnipeg, are solicitors for the applicants.

Detroit River Bridge.—As a result of the recent conference between the G. T. R., Michigan Central Rd. and Pere Marquette Rd. officers at Detroit, it is likely that an arrangement will be effected concerning the location of a bridge over the Detroit river, for the construction of which several charters, held by the different lines, are in existence. Press reports state that the G. T. R. and Michigan Central Rd. have appointed G. S. Morrison to locate a suitable site, his report to be prepared by Aug. 1. (Jan., pg. 20.)

Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a bridge for railway and general traffic across the Detroit river at or near Amherstburg, Ont. Blake, Lash and Cassels, Toronto, are solicitors for the promoters. It is believed that the project is being promoted by the Pere Marquette Rd., which, through the Lake Erie and Detroit River Ry., its recently purchased Canadian extension, is applying for power to construct various branch lines, including one to Amherstburg. In Detroit, Mich., a company with the title of the Pere Marquette International Bridge Co. is being organized for the purpose of constructing a railway bridge across the Detroit river, near Grosse island, 20 miles below Detroit. Such a bridge would have its Canadian end at or near Amherstburg. A bill has been considered by the U.S. Congress respecting this projected bridge.

Dinorwic to Albany River.—Application will be made next session of the Ontario Legislature for the incorporation of a company to construct a railway from Dinorwic on the C.P.R., 193 miles west of Fort William, Ont., to Lake St. Joseph, or the Albany river, via Big Sandy, Minnetakie and Lac Seul lakes, with a branch line to Sturgeon lake. Shelton, Wallbridge and Martin, Toronto, are solicitors for the applicants. The Ontario Legislature at its 1902 session voted a subsidy of \$3,000 a mile for a railway from Dinorwic to Lake Minnetakie, 15 miles, and surveys were made over a route for such a line by the C.P.R., but nothing definite was done.

Elgin and Havelock Ry.—P. S. Archibald, C.E., who recently inspected the line for the new owners, reported as to what was required to bring the line up to modern requirements. Temporary repairs have been made on several bridges, and tenders have been called for to

supply timber for the reconstruction of two others, one 600 ft. long, and the other 400 ft. If the prices for timber structures are too high, solid embankments and culverts will be constructed.

Notice has been given that application will be made next session of the Dominion Parliament for an act authorizing the extension of the line from Havelock to Chipman, N.B., and from Elgin to Alma, N.B. (Feb., pg. 39.)

Embro Radial Ry.—Application will be made next session of the Ontario Legislature for the incorporation of a company to construct a radial system of electric railways from Embro to Beachville; to Woodstock; to lot 15, con. 8, West Zorra tp.; to West Zorra town-line; to Stratford; and to St. Marys. Wallace & Little, of Woodstock, Ont., are solicitors for the applicants.

Flathead River to Elko.—Application will be made at next session of the B.C. Legislature for the incorporation of a company to construct a railway from the Flathead river on the International boundary to Elko on the Crow's Nest Pass section of the C.P.R. Galliher & Wilson, Vancouver, are solicitors for the promoters.

Guelph and Georgian Bay Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Guelph, Ont., via Elora, Fergus, Arthur and Mount Forest, to Owen Sound or Meaford; with power to construct branch or radial lines from Guelph to Erin, and Orangeville. D. Guthrie, Guelph, is solicitor for the promoters.

Guelph Ry. Co.—Application will be made next session of the Ontario Legislature for an act changing the name of this Co. to the Guelph Radial Ry. Co., with power to construct extensions from Guelph to Mount Forest and Erin, via Elora and Fergus; from Puslinch lake or Hespeler to Preston; with power to amalgamate with other companies; to maintain parks, to own and operate vessels and to maintain wharves; to confirm a by-law of the city of Guelph taking \$25,000 of stock in the Co.; and extending its borrowing powers.

Grandes Piles to La Tuque.—Application will be made at the current session of the Quebec Legislature for the incorporation of a company to construct a railway from Grandes Piles to La Tuque with power to construct branches to connect with the Great Northern Ry. of Canada, and the Quebec and Lake St. John Ry.

The Hamilton and Caledonia Ry. (Electric) will apply next session of the Ontario Legislature for authority to extend its railway through Dunnville, and the townships of Oneida, Canborough and Moulton, and for an extension of time for the commencement and completion of its lines.

It is expected that contracts for the construction for the first section of the line will be let early in the spring. The motive power of the line will be electricity generated by water power from the Grand river, either at Caledonia or Indiana. (Jan., pg. 23.)

Hamilton to Toronto.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Hamilton to Toronto, to be operated by steam, electricity or other motive power. H. B. McGivern, Ottawa, is solicitor for the promoters.

Hardy Bay to Muchalet Lake.—Application will be made next session of the B.C. Legislature for the incorporation of a company to construct a railway from Hardy bay, on the north-east coast of Vancouver island, to Quatsino sound, thence to Forward inlet, and also from Hardy bay, via Port McNeill, to Muchalet lake; with power to construct branches. C. H. Lugin, Victoria, is solicitor for the promoters.

Hardy Bay to Quatsino Channel.—Application will be made next session of the B.C. Legislature to incorporate a company to construct a railway from Hardy bay, at the north end of Vancouver island, westerly to West or Rupert arm of Quatsino sound, with power to construct branch lines. C. A. Bury, Victoria, is acting for the promoters.

Hudson's Bay and Pacific Ry.—Application will be made next session of the Dominion Parliament for an extension of time for the commencement and completion of the Co.'s railway. The Co. was incorporated in 1896, to construct a railway from Fort Churchill, on Hudson's Bay, to Calgary, with branches to Edmonton, and other points. (May, 1901, pg. 155.)

Hudson's Bay to Port Simpson.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Hudson's Bay, at or near Fort Churchill, to the south shore of Lake Athabasca, thence westerly via Peace river pass to Port Simpson on the Pacific coast. D'Arcy Scott, Ottawa, is solicitor for the applicants.

Hudson's Bay and Western Ry.—Application will be made next session of the Dominion Parliament for the incorporation of a company to construct a railway from Calgary to Fort Churchill, on Hudson's Bay. McMurrich, Hodgins and McMurrich, Toronto, are solicitors for the promoters.

The Huron, Bruce and Grey Electric Ry. Co. will apply next session of the Ontario Legislature to change its name to the Ontario West Shore Electric Ry. Co., and for authority to construct the following lines: from Dungannon to Lucknow, to Walkerton, to Wingham to connect with the C.P.R.; from the boundary of Huron county to London, with a branch from Parkhill on this line to Sarnia.

The taxpayers of Colborne township have defeated, by four votes, the proposal to take \$25,000 of stock in the Co. (Jan., pg. 23.)

The International Transit Co. will make application next session of the Ontario Legislature for the confirmation of its incorporation under the Ontario Companies' Act. (Feb., pg. 41.)

The Kootenay Central Ry. Co. will apply next session of the Dominion Parliament for an extension of the time within which its authorized line may be commenced and completed.

J. T. Laidlaw, C.E., T. T. McVittie, C.E., and C. N. Pollen have recently been employed in making surveys on this projected line from Fort Steele to Golden, B.C., about 160 miles. The preliminary surveys showed that there were no engineering difficulties along the route. (Nov., 1902, pg. 383.)

Kootenay Landing to B.C. Boundary.—Application will be made next session of the B.C. Legislature for the incorporation of a company to construct a railway from Kootenay Landing, southerly, along the west side of the Kootenay river to the International boundary. Galliher and Wilson, Victoria, are solicitors for the promoters.

Lake Erie and Detroit River Ry.—Application will be made next session of the Dominion Parliament for authority to construct a branch from near Walkerville to navigable waters of Detroit river or Amherstburg; also from Walkerville to near Sandwich, Ont.; and also for the incorporation of a company to construct a railway from Sarnia to St. Thomas, and from St. Thomas to Niagara river; with power to construct or lease a bridge over Niagara river.

Nothing has been decided as to the location of the extension of the line between St. Thomas and Niagara river; surveyors are still in the field at different points.

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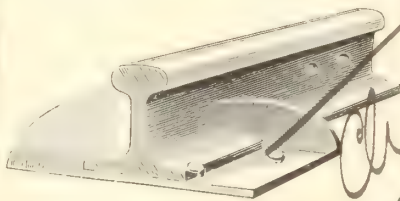
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160 acres at \$5.50 per acre, 1st instalment \$129.50, and nine equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$141.00, and nine equal instalments of \$120.

Purchasers who do not undertake to go into residence on the land within one year from date of purchase are required to pay one-sixth of the purchase money down and the balance in five equal annual instalments with interest at the rate of six per cent. per annum.

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The St. Thomas yards are being considerably enlarged in order to accommodate the increased traffic, since the Pere Marquette Rd. acquired the line. A through Y connection with the M.C. Rd., is to be laid down with an electric signalling system governing the same. The yard at Sarnia is being enlarged, and the crossing places along the line are being lengthened.

With respect to passenger business negotiations are reported to be in progress with the G.T.R. looking to the joint handling of the L.E. and D.R. Ry. and the G.T.R. business at the G.T.R. station in St. Thomas, and if the arrangement is made the L.E. and D.R. Ry. station will be moved further south and used for freight business exclusively. (Feb., pg. 41.)

L'Amable to Mayo Township.—We were advised, Feb. 12, by an officer of the Mineral Range Iron Mining Co. (Ltd.) that it was intended to apply for the incorporation of a company to construct a railway from L'Amable station, on the Central Ontario Ry., east and north to the mining property, which is from four to seven miles from that place, and thence to a point on the route of the projected extension of the Irondale, Bancroft and Ottawa Ry. No engineer has been appointed to make surveys, but the Co. hopes to be in a position to commence work in the spring. (Feb., pg. 41.)

Manitoba Lines.—Application will be made at the current session of the Manitoba Legislature for the incorporation of a company to construct the following lines: from Winnipeg to Gretna, with a branch from Plum Coulee to Brandon; from Winnipeg via Tyndall to the mouth of the Winnipeg river; from Winnipeg to Brandon, thence southerly to the International boundary, with a branch from Elgin via Hartney and Virden to the western boundary of the province, and another branch from Deloraine to the western boundary of the province; from Carman to Portage la Prairie, to Lake Winnipegosis; from Gretna to Crystal city, thence to Elgin, with a branch near tp. 4 to the western boundary of the province; from Carberry southerly to the International boundary; from Carberry to Neepawa, to the westerly boundary of the province, with a branch from Neepawa northwesterly; from Carberry via Morden to the International boundary; from Carberry to Rapid City and thence to the western boundary of the province; from Brandon to Baldur; from Plum Coulee easterly to the Lake of the Woods; from Winnipeg to a junction with the last mentioned line, and thence to Emerson; from Winnipeg to the narrows of Lake Manitoba, thence to Lake Winnipeg. Hon. T. M. Daly, Winnipeg, is solicitor for the promoters.

Application will also be made at the current session of the Manitoba Legislature for the incorporation of a company to construct the following lines of railway: from Sperling on the Canadian Northern Ry., southerly and easterly to Morris, thence to a point on the C.N. Ry. between St. Ann and the International boundary; from a point on the old Northern Pacific Ry. line between Winnipeg and Portage la Prairie westerly to Brandon; from near Swan river on the Canadian Northern Ry. along the valley of the Swan river westerly to the provincial boundary; and from near Greenway, on the old Northern Pacific Ry. southerly to tp. 1 range 17, west of the principal meridian. Munson and Allan, Winnipeg, are solicitors for the applicants. They are also the solicitors for the Canadian Northern Ry.

Midland Ry. of Manitoba.—The re-entry of the Northern Pacific Ry. into Manitoba will be effected, if the application for incorporation passes the Manitoba Legislature, under this title. The incorporators and provisional directors named in the bill are: C. S. Mellin, President, Northern Pacific Ry., St. Paul, Minn.; H. P. Upham, President, First

National Bank of St. Paul; C. E. Hamilton, St. Paul; J. S. Ewart and J. Fisher, of Winnipeg. Mr. Hamilton has had several interviews with the Manitoba Government in reference to the bill, and on Feb. 23 said that the Government had promised to consider the bill as quickly as possible, and would give facilities for getting it passed. While the company wished to have the act passed as speedily as possible it did not want to have any undue haste about it, and wished to let the public understand just what it was proposed to do. No conditions are attached to the bill, all that the promoters desired being what other applicants for railway charters were allowed. In another interview Mr. Hamilton stated that Duluth would be the terminal point of the line, and that it would be reached over the Northern Pacific Ry. Co.'s lines. The projected railways as set out in the notice of application are: from Winnipeg to Emerson; from Winnipeg to Beausejour and to Fort Alexander at the mouth of Winnipeg river; from Winnipeg to the western boundary of tp. 9, range 15, thence via Brandon and Souris to the westerly boundary of the Province; from Emerson to Lake Winnipegosis, via Carman and Portage la Prairie; from Emerson to the westerly boundary of the Province, via Crystal City and Lauder, with branches to the southern boundary of the Province; from Morden southerly to the International boundary, and northwesterly to Carberry, thence via Neepawa to the northern boundary of the Province, and via Rapid City to the western boundary of the Province, and from Brandon to the International boundary.

One press report states that 2,500 miles of railway are contemplated by the company, and another puts the mileage projected at 800. (Feb., pg. 43.)

On returning to Toronto Mar. 2 from England, President W. Mackenzie, of the Canadian Northern Ry., said in an interview in the Globe:—"The Northern Pacific Ry. does not propose re-entering Manitoba with new lines. I have been assured of this. I saw J. J. Hill in New York, and he said he was not going into Canada. Mr. Hill has always said that he did not want to build into Canada; that he had his own territory. The Vice-President of the Northern Pacific told me that the matter of building into Manitoba had not even been considered by the road." In answer to a further question Mr. Mackenzie said the people who were applying for a charter in Manitoba were "private parties." It is significant, however, that one of them, C. S. Mellen, is President of the Northern Pacific Ry.

Temiskaming and Northern Ontario Ry.—The commissioners were notified that the Algoma Steel Co. would not be in a position to fulfil its contract to deliver the steel rails required for the first 60 miles of the railway, and new tenders were asked for. As a result a contract has been let to Jas. Cooper, of Montreal, for 8,200 tons of 80 lb. English steel rails at \$28.85 a ton delivered at North Bay. A contract for fish and tie plates has also been placed.

The location is being revised between the 60th and 70th mile, a new route of easier curvature and gradients having been found. The following additional sub-contracts have been let: mileage 46 to 49, J. Sherwood, who has again sublet it; mileage 49 to 54, Murdock Bros.; mileage 54 to 60, Donovan and Doheny. These two latter firms have completed the former contracts let to them. (Feb., pg. 47.)

White Pass and Yukon Ry.—We are officially informed by the press reports that the Co. propose to construct a line from Dawson through Fortymile to the U.S. boundary line, are absolutely without foundation. The Co. has no intention of extending its railway line beyond Whitehorse.

Miscellaneous Notes.

The Recorder of Montreal has decided that the Montreal Street Ry. Co. may sidetrack or turn back a car before it has reached the end of its route, thereby compelling passengers to dismount and take the next car, provided transfers are given.

The Canada Railway News Co., lessee of the news privileges on the G.T.R. lines east of the Detroit and St. Clair rivers, has bought out the Central News Co., of Durand, Mich., which operated on the lines west of the rivers. This gives the Canada Railway News Co. the privileges over the entire G.T.R. system. F. Knowlly has been placed in charge of the western lines business, with office at Durand, Mich.

The Pere Marquette Rd. is operating the car-ferry International between its terminal at Port Huron, Mich., and the terminal of the Lake Erie and Detroit River Ry. at Sarnia, Ont., and is receiving freight and empty cars at Buffalo and Suspension Bridge, consigned via Michigan Central Rd., St. Thomas and Pere Marquette system. A press report states that the passenger trains of the Co. will enter Canada via Detroit and not via Port Huron.

Mackenzie, Mann & Co. have secured a valuable concession in Venezuela, South America. The concession covers what is known as the Orinoco tract, an area of about 11,000,000 acres, in which are forests of mahogany and other valuable woods, gold and copper mines, asphalt deposits and valuable water powers. Several attempts have been made by the original holders of the concession to have the lands developed, but they were hampered by law suits, as to title, etc., and no practical work was done.

The C.P.R. recently reported to the Italian Immigration Aid Society of Montreal that it would need during the coming season 5,000 Italian laborers, and the G.T.R. informed the Society that it would employ whatever Italian laborers it required through it. The Society is endeavoring to ascertain the number of Italians in Canada without employment, and to place them in work, and to make representations to the Italian Government as to the number and class of Italian immigrants required in Canada in the future.

The C.P.R. has purchased the patent rights for Canada covering a system of utilizing acetylene gas for lighting cars, the inventors of which were M. Toltz, late Mechanical Engineer of the Great Northern Ry., U.S.A., and A. Lipschutz, of St. Louis, Mo. This system differs from other systems of acetylene gas lighting in that the cylinders and piping in which the gas is stored and carried are fitted with fusible plugs, which at a certain temperature open and allow the contained gas to escape, rendering it practically impossible for the cylinder to explode when subjected to fire. It is the C.P.R.'s intention to at once proceed with the erection of plants and the equipment of its passenger rolling stock with this system of lighting. It is probable that the Safety Car Heating and Lighting Co., which controls this system of lighting in the United States, will furnish the equipment to be placed upon some of the cars. It is expected that during the coming season all the Co.'s passenger cars in service between Chicago and St. John will be equipped.

The development of power on the Canadian side of Niagara Falls is being undertaken by three companies. Two companies are at work excavating for their wheel pits and power houses, and the Queen Victoria Niagara Falls Park Commissioners have had before them the application of the third company. This company desires to develop 145,000 h.p. for delivery in Toronto and other points in Ontario. In Toronto the power would be used by the Toronto Ry. and the Toronto Electric Light Co. Among the pro-

motors of the Company are W. Mackenzie and F. Nicholls.

The Locomotive and Machine Co. of Montreal, Ltd., which was incorporated last year with an authorized capital of \$1,000,000, has the following board:—President, M. J. Haney, Toronto; Vice-President, J. T. Davis, Montreal; Directors: M. Conolly, Montreal; G. P. Brophy, Ottawa; H. Miller, Ingersoll, Ont. The officers are: Chief Engineer, M. J. Butler; Superintendent, R. T. Shea; architect of buildings, E. R. Rolph. The Co. has bought about 70 acres of land at Longue Pointe, on the St. Lawrence near Montreal, and plans have been completed for the buildings, which will be principally of steel, and work on which will be commenced in March. A considerable quantity of the machinery has been bought. It is expected the work will be ready by Sep. 1 to start building locomotives, afterwards the manufacture of structural steel will be taken up, and ship-building is also likely to be gone into.

The National Association of Marine Engineers of Canada held its annual meeting at Montreal Jan. 27 to 29. The list of officers elected is given on pg. 74. It was decided to hold the next convention in Kingston, in Jan., 1904. The reports of the President and Secretary showed that the organization had made considerable progress during the year both numerically and financially, about 300 certificated engineers having joined the order in Canada during the year. A number of matters of interest to marine engineers were discussed, and resolutions were framed for presentation to the Government with a view to obtaining better protection by having the law relating to the inspection of boilers and engines amended. The chief subject of discussion was the desirability of having the Steamboat Act amended in so far as it related to the trading of foreign and British built vessels coastwise on the inland waters of Canada, to the detriment of Canadian shipbuilders and engineers holding certificates from the Canadian Government. Resolutions were framed, which will be presented to the Minister of Marine favoring the rescinding of the clauses complained of. The engineers of Montreal entertained the Grand Council at dinner; among the specially invited guests being Hon. J. I. Tarte, ex-Minister of Public Works; Mayor Cochrane, and Dr. Guerin, M.P.P.

The Upper Columbia Navigation and Tramway Co. (Ltd.), in which Capt. F. P. Armstrong, of Golden, B.C., has the controlling interest, operates two steamers on the upper reaches of the Columbia river, on the Golden-Windermere route. The str. North Star, which was brought over from Jennings, Mont., during the summer of 1902, is being fitted up as a first-class passenger boat with cabin accommodation for 100. The Co.'s second str., Duchess, which has the following dimensions: length, 81.6 ft.; breadth, 17.3 ft.; depth of hold, 4.6 ft., is being entirely rebuilt, the new dimensions being: length, 110 ft.; breadth, 21 ft.; depth of hold, 4 ft. The hull is built entirely of spruce sawn by the Columbia River Lumber Co., of Golden, B.C., and very carefully selected. The estimated draft, light, is 9 ins., and she will carry a paying load on a draft of 14 ins., the depth of water on the bars of the Upper Columbia river during low water. The upper works are to be of light cedar, and while giving very comfortable quarters for 25 passengers, the cabin space has been so well utilized that the size and weight of the house are relatively small. The business on the route has grown considerably during the last two or three seasons, which made it necessary to improve the steamers on the route. The mines of the Winermere district are becoming heavy shippers, and provide a good deal of business for the steamers on the route.

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BOOKBINDING

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$3,246,620.51	\$2,070,909.25	\$1,175,711.25	\$79,844.32+
Aug.	3,554,184.56	2,191,283.11	1,362,901.46	57,269.36+
Sept.	3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+
Oct.	4,127,402.07	2,511,267.44	1,616,134.63	149,095.41+
Nov.	3,976,068.87	2,417,828.03	1,558,240.84	117,362.10+
Dec.	3,959,146.15	2,286,704.31	1,672,441.84	103,730.33+

\$22,514,903.58 \$13,718,719.66 \$8,796,183.92 \$565,344.30+

Approximate earnings for Jan. \$3,147,000, against \$2,620,000 for Jan., 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Dec., \$202,265.30; net earnings, \$59,437.26, against \$203,800.41 gross and \$65,008.04 net for Dec., 1901. Net earnings for six months ended Dec. 31, \$533,235.12, against \$506,791 for same period, 1901. Approximate earnings for Jan. \$197,279, against \$192,156 for Jan., 1902.

MINERAL RANGE RY.—Approximate earnings for Jan., \$45,329, against \$42,380 for Jan., 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Dec., \$513,450.23; net earnings, \$232,715.81; against \$510,401.87 gross and \$288,081.94 net for Dec. 1901. Net earnings for six months ended Dec. 31, \$2,118,589.69, against \$1,939,272.50 for same period 1902. Approximate earnings for Jan. \$441,219, against \$365,491 for Jan., 1902.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.	
	1902-03	1901-02	1901-02
July	155,344.93	49,089.96	\$562,876.50
Aug.	130,723.83	50,747.82	473,064.85
Sept.	145,535.83	60,060.46	542,811.11
Oct.	270,616.23	150,572.96	952,645.35
Nov.	146,687.83	151,922.89	598,788.99
Dec.	577,382.61	132,151.16	1,683,289.45
Jan.	102,581.29	109,846.99	428,611.21
	1,538,872.55	704,392.24	\$5,237,535.46
			\$2,247,117.86

Grand Trunk Ry. Earnings, Expenses, &c

The accounts for the half-year to Dec. 31, 1902, show the following results:

Gross receipts	£2,812,000
Working expenses, including special appropriation of £30,000 to bridge renewal account	1,975,000
Net receipts	837,000
Net revenue charges, less credits	509,000
Balance	£328,000
Deduct Detroit, Grand Haven and Milwaukee Ry. deficiency for half-year	2,000
Surplus	£326,000

This surplus added to the balance of £2,600 from June, 1902, makes £328,600 available for dividend, which will admit of the payment of the full dividends for the half-year on the 4% guaranteed stock and 1st and 2nd preference stocks, and a dividend of 1% for the year on the 3rd preference stock, leaving about £4,000 to be carried forward. The accounts of the G.T. Western Ry. for the half-year show a surplus of £600, which is carried forward to the current half-year.

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase. Decrease.
Jan.	\$2,634,200	\$2,278,978	\$355,222

The following figures are issued from the London, Eng., office:

GRAND TRUNK RY. CO.**Revenue for Nov.:**

	1902.	1901.	Increase.	Decrease.
Gross receipts	£457,600	£419,400	£38,200	....
Working expenses	299,000	271,400	27,600	....
Net profit	£158,600	£148,000	£10,600	....

Aggregate from July 1 to Nov. 30:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£2,333,900	£2,174,300	£159,600	....
Working expenses	1,515,600	1,405,600	110,000	....
Net profit	£818,300	£768,700	£49,600	....

GRAND TRUNK WESTERN RY.**Revenue for Nov.:**

	1902.	1901.	Increase.	Decrease.
Gross receipts	£81,000	£66,600	£14,400	....
Working expenses	10,800	55,400	15,400	....
Net profit	£10,200	£11,200	....	£1,000

Aggregate from July 1 to Nov. 30:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£406,000	£363,700	£42,300	....
Working expenses	361,200	312,200	49,000	....
Net profit	£44,800	£51,500	....	£6,700

DETROIT, GRAND HAVEN AND MILWAUKEE RY.**Revenue for Nov.:**

	1902.	1901.	Increase.	Decrease.
Gross receipts	£21,500	£20,300	£1,200	....
Working expenses	17,000	15,000	2,000	....
Net profit	£4,500	£5,300	....	£800

Aggregate from July 1 to Nov. 30:

	1902.	1901.	Increase.	Decrease.
Gross receipts	£110,100	£100,900	£9,200	....
Working expenses	78,400	73,000	5,400	....
Net profit	£31,700	£27,900	£3,800	....

TRAFFIC RECEIPTS OF THE SYSTEM.**Aggregate from July 1 to Dec. 31:**

	1902.	1901.	Increase.	Decrease.
Grand Trunk	£2,805,937	£2,565,359	£240,578	....
G. T. Western	493,443	444,785	48,658	....
D. G. H. & M.	131,087	126,225	4,862	....
Total	£3,430,467	£3,136,369	£294,098	....

London, Ont., Street Railway Company.

The report for the year 1902 shows the following results as compared with 1901:

	1902.	1901.
Gross earnings	\$154,703.97	\$141,845.59
Operating expenses	\$93,248.40	\$84,556.95
Net earnings	\$61,455.57	\$57,288.64
Passengers carried	3,887,598	3,744,469
Mileage	1,227,283	1,228,684
Transfers	637,267	568,255
Percentage of operating expenses and earnings	60.3	59.6

The net earnings, after paying all charges, were 8.35% of the capital stock, and the directors feel that had the summer been favorable this would have been considerably increased. The Springbank line has been much improved during the year by double-tracking at Woodland cemetery; cutting down of Railway st. hill and double-tracking same; the opening up of Beaconsfield ave. and the laying of a single track through to Wortley road and connecting with the tracks on York st., enabling the park service cars to make their round trip in 20% less time than formerly. These improvements have greatly facilitated the handling of large crowds to the park, and are much appreciated by the public. During the year an agreement was arrived at between the city and the Co. whereby consent was given to abandon a portion of Rectory st., the population to be fixed at 40,000 and the Co. to build certain extensions. A by-law to that effect was prepared and passed by the council and was accepted by the Co. and the Rectory st. track torn up, but before the formal agree-

ment was executed, the city, owing to a technicality, declined to carry it out. The city later passed certain compulsory by-laws regarding extensions of tracks, routes and service, which the directors felt could not be complied with, and an application was made to the courts to have the by-laws declared invalid. These matters are now before the courts and decision pending. The amount set aside for insurance protection against accident claims has proved ample to pay all ordinary claims and accumulate a surplus. The assessment of the Co.'s property, which has been more or less of a troublesome question for years, appears now to be amicably adjusted. The power plant is in good repair, the boilers having all been re-tubed and the three small engines re-valved and adjusted. The trucks of all the combination motor cars have been thoroughly overhauled and the tracks, right-of-way and other equipments maintained. The Co.'s business continues to increase steadily, and from estimates submitted by the management, the directors look for a continuance of this increase during 1903.

ASSETS.

Road and equipment	\$884,696.35
Cash account	15,006.91
Accounts receivable	235.40
Injuries and damages	1,136.60
Suspense account	1,339.77
Stores account	19,371.67
Uniform account	564.75
	\$922,351.45

LIABILITIES.

Capital stock	\$448,880.00
Bond account	450,000.00
Ticket account	710.76
Accounts payable	9,383.87
Profit and loss	13,376.82
	\$922,351.45

INCOME ACCOUNT.

Dividend paid Jan. 22, 1902	\$16,000.00
July 5, 1902	16,000.00
Income above all expenses and fixed charges to Dec. 31, 1902	13,376.82
	\$45,376.82

Following are the officers, etc., for the current year: President, H. A. Everett, Cleveland, Ohio; Vice-President, T. H. Smallman; other directors, E. W. Moore, H. S. Holt, C. W. Mason, W. M. Spencer, P. W. D. Broderick; Secretary-Treasurer and General Manager, C. E. A. Carr.

Toronto Railway Company's Report.

Following are extracts from the report for the year 1902:

That the financial statement does not show a larger net revenue than \$506,442.83 is accounted for mainly by the higher prices paid for material used in maintenance and repairs, by the abnormally high price of coal, a very large increase in wages of employees in the several departments and a large outlay of money, occasioned in the detection and punishment of systematic thieving, which was depriving the Co. of a considerable portion of its net revenue.

The Co. declared four quarterly dividends of 1¼% each. The expenditure on capital account during the year was \$191,656.13, which has been devoted to the purchase of motor equipments and the construction of additional track, overhead system, new rolling stock and buildings, to accommodate the increased business. The roadbed, rolling stock and other property have been maintained in a high state of efficiency. The directors consider it advisable to set aside a portion of the accumulated earnings for the purpose of providing against heavy or special renewals, and have adopted the policy of establishing an account for such contingencies by transferring

\$75,000 from the surplus to a contingent account. The shareholders having sanctioned an increase in the capital stock by \$1,000,000, the directors have made an allotment of 6,000 new shares out of the amount authorized, which have been subscribed in full. The Co. paid the city during the year, under the terms of the franchise, \$255,551.07, against \$226,453.54 in 1901, and also paid the Provincial tax levied under the Revenue Act.

COMPARATIVE STATEMENT.

	1992	1991
Gross earnings	\$1,834,908.37	\$1,691,047.30
Operating expenses	1,030,341.32	857,662.40
Net earnings	804,567.05	833,384.90
Passengers carried	44,347,928	39,848,087
Transfers	13,474,420	13,730,068
Percentage of operating expenses to earnings	53.3	53.5

INCOME ACCOUNT.

Net income, after deducting all expenses and fixed charges	\$1,000,447.84
Quarterly dividends	99,943.95
Pave ment charges	79,571.50
Surplus	
Contingent account	\$75,000.00
Profit and loss account	<u>\$825,932.39</u>
	\$1,805,381.39
	\$1,000,447.84

YSSP 15.

Road and equipment, real estate and build- ings, including improvements and suburban lots	\$1,858,790.74
Stores in hand	108,555.07
Accounts receivable	252,294.36
Cash in bank	\$97,152.09
Cash in hand	22,166.93
	<u>\$11,425,946.09</u>

LIABILITIES.

Capital authorized.....	\$7,000,000 00	
Capital allotted.....	6,600,000 00	
Capital issued.....		\$6,268,414 00
Bonds -		
Tor. Ry. Co., 4 1/2% sterling	\$2,400,473 33	
" " 6% currency	843,000 00	
" " 6% debent's	600,000 00	
Tor. & Min. Elec. Ry. & Lt. Co.	100,000 00	
Tor. & Scar. Ry., L. & P. Co.	40,000 00	
	\$3,943,473 33	
Less bonds not sold, and in hand for future requirements	\$140,000 00	
		\$3,803,473 33
Mortgages		700,000 00
Accrued interest on bonds.....		91,577 88
Acc. rents and wages payable		114,710 25
Unredeemed tickets		12,925 32
Dividend payable Jan. 2, 1903		77,448 94
Contingent acc. amt.....		75,000 00
Profit and loss as at Dec. 31, 1902	\$1,253,504 14	
Less payment of pavement charges to city withheld during years of litigation	\$37,236 16	
Less directors' fees for 1902	4,500 00	
		10,736 16
		1,214,777 88
Balance Dec. 31st, 1902		\$8,729 88

The board was re-elected as follows : President, W. Mackenzie ; Vice-President, Jas. Ross ; other directors, Hon. G. A. Cox, J. Gunn, W. D. Matthews, F. Nicholls, H. M. Pellatt. E. H. Keating is Manager, and J. C. Grace, Sec.-Treas.

Winnipeg Electric Street Railway Co.

The report for the year 1902 contains the following figures :

	1907.	1907.
Gross receipts	\$397,091.87	\$390,369.87
Operating expenses	210,984.86	173,218.84
Operating expenses per cent. of earnings	53.13	55.08
Net earnings	\$186,107.01	\$167,151.03
Net income per cent. of capital	9.04	7.53
Passengers carried	4,490,556	3,413,160
Transfers	1,078,970	910,862
Earnings per capita on basis of last census	4.47	

The percentage of earnings increased 28.34% compared with 1901, the operating expenses increased 21.80%, and the net earnings increased 36.66%.

The road-bed, rolling stock, buildings, and other properties have been efficiently maintained. During the year the following improvements and additions were made, viz.: Six standard closed motor cars and six trailers purchased; 6,400 feet of new track put in on Dufferin Avenue to the exhibition grounds; 16,400 feet of track laid in asphalt pavements with 70 lb. rails to replace 56 lb. rails; 22,040 feet of new gas mains have been laid during the year.

ASSETS.

Cost of property:--street rail'way, build- ings, plant and equipment; electric light- ing plant and equipment; electric power plant and equipment; gas building, plant, and equipment.....	\$2,462,279 11
Stores	37,380 63
Merchandise for sale.....	4,461 84
Accounts receivable.....	14,126 83

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Boiler Tubes. Plates and Shapes.**

GERALD LOMER, MONTREAL

Cash on hand.....	\$2,302 66
	<u>\$2,520,551 07</u>

LIABILITIES.

Capital stock paid in.....	\$1,250,000 00
Bonds 5%, payable Jan. 1, 1927.....	1,000,000 00
Accounts payable.....	\$51,416 15
Wages for December.....	8,733 35
Dividend due Jan. 5, 1903.....	18,750 00
Car license due Feb. 1, 1903.....	900 00
City of Winnipeg, do.....	9,986 44
Unredeemed tickets.....	10,886 44
Bank of Montreal.....	3,417 46
Surplus.....	10,208 49
Suspense.....	14,559 13
Surplus.....	152,580 05
	<u>\$2,520,551 07</u>

REVENUE AND EXPENDITURE.

Gross earnings.....	\$395,825 65
Gross expenses.....	210,984 86
Net earnings.....	\$184,840 79
Earnings from gas stoves.....	1,266 22
	<u>\$186,107 01</u>
Fixed charges.....	\$70,404 53
Directors' fees.....	1,750 00
Dividends.....	64,962 74
Construction contingent account (transfer).....	25,000 00
	<u>162,117 27</u>
Surplus for year.....	<u>\$ 23,989 74</u>

PROFIT AND LOSS ACCOUNT.

Balance at credit, Dec. 31, 1901.....	\$128,590 31
Surplus, 1902.....	23,989 74
Balance at credit, December 31, 1902.....	<u>\$152,580 05</u>

The board was re-elected as follows: President, W. Mackenzie; Vice-President, W. Whyte; Secretary, F. M. Morse; other directors, Sir W. C. Van Horne, D. D. Mann, A. M. Nanton, D. D. Hanna.

1902 was the first year under the agreement, for which the Co. paid a percentage to the city on the gross earnings of the railway. At 5% on \$199,728.80 this amounted to \$9,986.44.

British Columbia Electric Railway Co.

The report to June 30, 1902, embraces 15 months' operations from April 1, 1901. The directors report increased business in all departments, the profits again show an increase, and future prospects continue satisfactory. For the 15 months the gross receipts from the electric railways in Vancouver, Westminster, and Victoria, from electric lighting in Vancouver and Victoria, and from miscellaneous sources were \$691,487, an increase of \$80,369 over the corresponding period. The working expenses were \$426,760, an increase of \$52,929; and the net earnings were \$264,727, an increase of \$27,440. The net profits of 15 months, after deducting London office expenses, writing £1,000 off preliminary and issuing expenses, and providing £10,036 11s 6d for renewals, were £39,544 5s 6d, to which add balance from previous year, £63 13s 10d, making £39,607 19s 4d. Deduct debenture interest to June 30, 1902, £14,032 6s, and dividend on preferred ordinary stock for 12 months to March 31, 1902, £10,000, leaves £15,575 13s 4d available for distribution and reserves. From this the directors have decided to provide for the balance of dividend on the preferred ordinary stock (3 months to June 30, 1902) £2,500; to recommend the payment of a dividend on the deferred ordinary stock of £4 % per annum, which, including income tax, will absorb for the 15 months £10,628 18s 3d; to transfer to capital amortization account £1,913 3s 6d; and to carry forward to next account a balance of £533 11s 7d.

Work on the Vancouver water-power plant has been undertaken and vigorously and successfully pushed since last July, and the board hopes to have the use of the first 1,000 horse-power early in 1903, and 5,000 horse-

power more in about two years' time. On the advice of the engineers the dead-work is being constructed of considerably larger dimensions than was at first contemplated, and will be sufficient to provide water for an electrical plant of a capacity of 20,000 horse-power, the electrical machinery for which can be added in units of 1,000 horse-power as required. Owing to lack of capital, pending the issue of the new preference shares, additional rolling stock, which is most urgently needed, has not been built, and, in consequence, a considerable amount of profitable freight business had to be refused during the last half of 1902. The directors have instituted a scheme by which the employees in B.C. will in future participate in the Co.'s profits after the payment of a dividend to the deferred ordinary stockholders. They feel sure that the shareholders will approve of the principle of the Co. giving to its employees a direct interest in its fortunes, as a mark of appreciation for their loyal and zealous services, and that the institution of this profit-sharing scheme will conduce to the future prosperity of the Co. During the 15 months the Co. expended \$256,131.06 on capital account.

At the annual meeting in London, Eng., Jan. 21, the Chairman stated that in the report the directors stated that it was their intention to recommend the payment of a dividend on the deferred ordinary stock of 4% per annum for the 15 months ended June 30, 1902. Since the report was issued they had received advices from B.C. stating that the Co.'s business was increasing again in a manner which had not been anticipated. A large number of important buildings which required lighting were being erected in the city. In view of this fact, and of other expenses, the directors had consulted with the principal holders of the deferred ordinary shares, and it has been thought advisable, instead of paying the whole of the dividend in cash, that the 15 months' dividend should be paid in deferred ordinary shares representing the amount, and, further, that on Jan. 28 the usual (interim) dividend of 4% per annum on the deferred ordinary shares should be paid in cash. The necessary resolutions approving of the action of the directors were passed. The directors were re-elected as follows: R. M. Horne-Payne, Chairman; Hon. M. R. Gifford, G. P. Norton, R. K. Sperling, London, Eng.; F. S. Barnard, Vancouver.

The Co. recently offered for subscription to existing preferred and deferred ordinary shareholders and 4½% first mortgage debenture-holders 7,500 5% cumulative perpetual preference shares of £10 each, to provide additional working capital.

Calgary & Edmonton Railway Co.

A meeting of certificate-holders in this Co. was held in London, Eng., Feb. 6, Wm. Trotter, chairman of the bondholders' committee, presiding, for the purpose of considering and approving a provisional agreement between the C.P.R. Co. and the committee, as holders of deposited bonds and interest certificates, providing for the delivery to that Co. of the 6% first mortgage bonds and interest certificates in exchange for C. and E. Ry. 4% registered debenture stock for £1,121,700, the interest on such stock to be payable half-yearly by the C.P.R. Co. direct to the stock-holders, and to authorize the committee as holders of the deposited bonds and interest certificates to enter into a definitive agreement with the C.P.R. Co.

Mr. Trotter recapitulated the history of the Co. up to Oct. 7, 1902, when the bondholders' committee was appointed, and the negotiations that had since taken place with the C.P.R. The agreement entered into as a result of the negotiations was one upon which

the bondholders might be congratulated. The committee wished to obtain more, but they hardly hoped or expected to get it. The new stock was to be a 4% debenture stock, and the C. and E. Ry. was to be put on the list of the lines of the C.P.R. for 99 years at a rental which would give 4% on the whole of the debenture stock. This the C.P.R. guaranteed to pay, and at the end of the 99 years the C.P.R. would either repay the principal of the bonds at par, or would enter into a new lease for another similar period of 99 years. The value of these bonds should be worth at least as a minimum 106%. Taking the value as £106, the £94 10s stock would produce about £100 3s 5d, or just over par for the C. and E. Ry. bonds, but the committee anticipated that the price of the stock would range above 106, and that would be the amount of profit to the bondholders. The total amount of stock to be received from the C.P.R., supposing every one of the bonds and certificates came in, was £1,121,700. Of this new stock £1,060,006 would be required to be distributed at 94½%; that left £61,693 10s of stock to be sold by the committee, which would provide for the expenses, and about 34% of the outstanding arrears of certificates and interest, which made a total of £168,225. Of the total amount of £1,121,700 bonds, there had been deposited £1,095,900, and there were only really about £25,000 outstanding. That was less than they could possibly have expected. Out of the £168,000 in scrip issued they had got in nearly £148,000, leaving a balance of a bare £20,000, which was very satisfactory. It was only on this large show of trust in the committee that the C.P.R. keenly entered into the negotiations. At the outset the C.P.R. laid down two indispensable conditions, namely, that the whole of the common stock of the C. and E. Ry. Co. should be acquired by it on satisfactory terms, and transferred to it, and that would take considerable time and trouble to arrange. The stock-holders did not reside in this country, and it was impossible that they should have others remaining as proprietors. He thought the committee was to be congratulated on having been able to arrange such a purchase. The other point was that the whole of the bonds issued and held in connection with the unpaid interest should be handed over to them. If, therefore, any of the bonds or interest certificates were not forthcoming, an equivalent amount of stock would be retained in the hands of the C.P.R. Co., which would be ready to make the exchange, as the small balance might be presented. The final contract and details had been arranged for signature, and the payment of interest would be made on Jan. 1 and July 1, and the first payment would be made on July 1 next; that was to say, on the understanding or basis of an agreement that the net receipts of the C. and E. Ry. Co. from Jan. 1 were to be handed over to the C.P.R. Co., and kept by it. He concluded by moving: "That the provisional agreement submitted to this meeting, and dated Jan. 29, 1903, and made between the C.P.R. Co. and the London committee of bondholders of the C. and E. Ry. Co., appointed Oct. 7, 1902, providing for the issue to the committee of £1,121,700 C. and E. Ry. 4% registered debenture stock in exchange for all the 6% first mortgage bonds and unpaid interest certificates of the last-named company be, and the same is hereby approved, and the committee is hereby authorized to enter into a definitive agreement upon the terms of the provisional agreement, and such other terms and conditions as the committee and the C.P.R. Co. may agree." This was adopted.

It was also resolved: "That the committee be, and they are hereby authorized to distribute to their certificate holders C. and E. Ry. 4% registered debenture stock at the rate of £94 10s of stock in exchange for each £100

bond, and to sell the remainder of the said stock and distribute cash at the rate of £34, or thereabouts, in exchange for each £100 of unpaid interest certificates," and that Messrs. Keyser receive £5,000 for their services, instead of the ½%, as originally proposed.

In connection with this settlement, application will be made next session of the Dominion Parliament for an act confirming the issue of debenture stock, and the exchange of such stock for the Co.'s bonds, and to approve and validate any arrangement made or which may be made between the bondholders and the Co. (Jan., pg. 27.)

The C. and E. Ry. runs from the main line of the C.P.R. at Calgary, Alta., northerly to Strathcona 190.6 miles, and from Calgary southerly to Calgary Jct., near McLeod, 105.6 miles. It was opened in 1892, and has been operated by the C.P.R. for the C. and E. Ry. Co.



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TANKS
TANK
FIXTURES

RAILROAD WORK
A SPECIALTY

Ontario Wind Engine
and Pump Co., Limited
TORONTO, - ONT.

The Canadian Pacific Railway Company.

Dividends for the half year ended 31st December, 1902, have been declared as follows:

On the Preference Stock two per cent.

On the Common Stock two and one-half per cent.

Warrants for the Common Stock dividend will be mailed on or about 1st April to Shareholders of record at the closing of the books in Montreal, New York and London respectively.

The Preference Stock dividend will be paid on Wednesday, 1st April to Shareholders of record at the closing of the books at the Company's London office, No. 1 Queen Victoria Street, London, E.C.

The Common Stock Transfer Books will close in Montreal, New York and London, at 1 p.m., on Saturday, 28th February. The Preference Stock Books will also close at 1 p.m. on Saturday, 28th February. All books will be reopened on Thursday, 2nd April.

By order of the Board,

CHARLES DRINKWATER,

Montreal, 6th February, 1903.

Secretary.

UNIFORM CAPS

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EMPLOYEES OF . . .

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MILITARY AND POLICE HELMETS.

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A partial list of elevators which have been designed and constructed by us and under our supervision.

Burlington Elevator, St. Louis, Mo.	Capacity	1,300,000 Bushels
Grand Trunk Elevators, No. 2 and No. 3, Portland, Me.		2,500,000 "
Export Elevator, Buffalo, N.Y.		1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario.		1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas.		1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	100 cars in 10 hrs.	"
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.		1,500,000 "
Burlington Elevator Co., Peoria, Ill.		500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.		500,000 "
Northern Grain Co., Manitowoc, Wis.		1,350,000 "
Union Elevator, East St. Louis, Ill.		1,100,000 "
Montreal Warehousing Co.'s Belt Conveyor System		"

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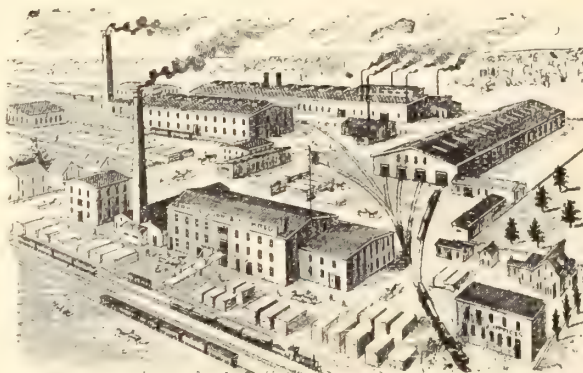
PLANS AND SPECIFICATIONS.

The POLSON IRON WORKS

TORONTO, CANADA.

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Special Cars for Coal, Ore,
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**Car Wheels, Castings, Forgings, &c.
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CANAL BANK, PT. ST. CHARLES, MONTREAL.

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STEEL CASTINGS

(Open Hearth System)

**Springs, Frogs
Switches**

**Interlocking Plants Installed
Jenne Track Jacks, Etc.**

FOR STEAM AND ELECTRIC RAILWAYS.

Richelieu and Ontario Navigation Co.

The following report for the year ended Dec. 31, 1902, was presented at the annual meeting in Montreal, Feb. 19:—

	1902	1901	1900
Gross receipts	\$1,036,666 27	\$1,109,438 99	\$901,331 80
Operating expenses	840,449 03	920,569 32	748,105 33
Fixed charges	21,632 32	22,792 16	23,903 51
Net profit	\$ 174,584 92	\$166,097 51	\$129,322 96

ASSETS.

Steamers, real estate and buildings, wharves, etc.	\$3,607,181 44
Coal, stores, provisions, etc.	93,849 59
Accounts receivable	23,244 46
Cash	9,262 00
	\$3,733,537 49

LIABILITIES.

Capital stock	\$3,132,000 00
Bonds 5% sterling	\$571,833 33
Less cancelled	143,079 98
Accounts payable	428,753 35
Unclaimed dividends	33,947 69
Accrued interest on bonds	141 00
Surplus	7,145 91
	\$3,733,537 49

INCOME ACCOUNT.

Two dividends of 3% each	\$ 174,224 70
Carried to surplus	360 22
Net income over and above expenses, fixed charges and income for 1902	\$ 174,584 92

Two semi-annual dividends of 3% each were paid. The gross receipts are less than those of 1901 (which are unusually large in consequence of the Pan-American exposition at Buffalo) but are well in excess of those of 1900, the largest up to that period, in spite of the fact that last summer was exceptionally cold and wet. The expenses show a satisfactory decrease. The fleet and other properties have been maintained in first-class condition, and all repairs and improvements have been charged against operating expenses. The Lower St. Lawrence Route continues to increase in popularity, and the Co.'s hotels have assisted largely in this result. The new steamer Montreal was not in commission during the past year as expected; the builders state that she will be ready for the early part of the ensuing season. The iron steamer Virginia has been purchased and will be placed on the route between Quebec and Chicoutimi during the ensuing season. She is a sister vessel to the Co.'s steamer Carolina, but newer and with larger passenger accommodation. The additional wharf property purchased at Quebec for the Saguenay line steamers will be in use during the ensuing season. Under the deed of trust securing the bonds issued in 1895, \$23,360 have been withdrawn and cancelled during the year, making the total cancelled to date \$143,079, and leaving \$428,753.36 outstanding. With the improvement of the Co.'s service its relations with connecting lines are being correspondingly strengthened and promise to continue of the most cordial character.

The following were elected directors: Hon. L. J. Forget, R. Forget, W. Wainwright, C. O. Paradis, J. K. Osborne, H. M. Molson, F. C. Henshaw, G. Caverill, E. B. Garneau, H. M. Pellatt, W. Hanson.

Gold watches were presented at the meeting to Captains Batten and Ouillette, who took the new steamer Montreal through the Lachine rapids last May.

The Provincial Bank has decided to build a branch at Hochelaga, Montreal, at a cost of \$20,000, for the convenience of employees of the C.P.R. shops, who are to be paid by cheque on that bank. The amount involved will be from \$250,000 to \$300,000 a month.

Muskoka Navigation Companies.

The annual meeting of the shareholders of the Muskoka and Georgian Bay Navigation Co. was held recently in Toronto. No printed report or financial statement has been issued to the shareholders as in previous years, but the directors reported that the net earnings for 1902 were \$10,826, or 16½% on the capital employed, notwithstanding the unfavorable season. The net earnings for 1901 were \$12,546.88, or 19% on the capital, and a dividend of 10% was paid. For 1902 a dividend of 7% was declared. It was decided to authorize the directors to secure the construction of an additional steamer for the Rosseau route at a cost not to exceed \$40,000. This steamer will not be on the route this season, the intention being to arrange for building during next winter, and to put the boat on the route at the opening of navigation in 1904. The following were elected: President, S. Barker, M.P., Hamilton; Vice-President, Lieut.-Col. McLaren, Hamilton; Manager and Treasurer, A. P. Cockburn, Toronto; Secretary, H. C. McLean, Toronto; other directors: G. Homer, Gravenhurst, and F. J. Phillips, Toronto.

The persons above mentioned are also officers and directors of the Muskoka Navigation Co., which was formed in 1901 for the purpose of acquiring the M. and G.B.N. Co., enlarging its operations and erecting hotels. The M.N. Co. acquired a controlling interest in the M. and G.B.N. Co., and built the Royal Muskoka hotel on a site acquired from a company formed in Hamilton to erect hotels in the Muskoka country. The business of the hotel for 1902, it is reported, was not so large as was anticipated, owing to the incompleteness of the building, the somewhat unfavorable season and other causes. A proposition has been laid before the shareholders of the two companies to amalgamate their interests by the formation of a new company, which it is suggested shall be called the Muskoka Lakes Navigation and Hotel Co., and the basis proposed for the amalgamation is the exchange of stock in the new company at the rate of 45% premium for the stock of the M. and G.B.N. Co., and par for stock in the M. N. Co. In connection with this question a circular was issued to the shareholders of the M. and G.B.N. Co. by A. P. Cockburn, in which he referred to the changing conditions of the navigation business on the Muskoka lakes, and points out that many of the leading transportation companies, both by land and water, have found it expedient in the interest of their passenger traffic to provide hotels along their respective routes. He claims that the Royal Muskoka hotel has already demonstrated its great value to every interest upon the lakes, and that with the G.T.R. guarantee, which is understood to be 5% on the cost of construction for 10 years, and other assistance, its success, financial and otherwise, seems to be assured beyond doubt.

Since the above was put in type we have been informed that the amalgamation of the two companies had been agreed to by the shareholders, and that application has been made to the Ontario Government for a new charter.

Manitoba and Northwest wheat to the extent of about 13,000,000 bush. is being sent to Duluth, Minn., where the necessary storage can be obtained. Sir Thos. Shaughnessy said that the arrangement was that all foreign cars going into the wheat-growing territories returned with grain; it had been in force heretofore, and had worked satisfactorily. The Great Northern Ry., U.S., had been moving large numbers of settlers into Northwest Canada, and up to the middle of Jan. had taken in 300 carloads of settlers' effects; these cars had been returned carrying wheat.

Transportation Between Canadian Ports.

The following order-in-council was passed at Ottawa Jan. 23:—"Goods imported in bond or duty paid, and products or manufactures of Canada, when transported or towed in or by vessel from one port or place in Canada to another port or place therein over any waters outside the limits of Canada, shall be transported or towed only in or by vessels permitted to engage in the Canadian coasting trade, and under special customs manifests in such form and subject to such conditions as shall be prescribed by the Minister of Customs, except as otherwise authorized by the Governor in Council; provided that the goods when transported or towed in conformity with this regulation, shall upon arrival in Canada, from any place beyond the limits of Canada, be treated, with regard to the liability or exemption from duty, as if the transportation or towing had taken place entirely within the limits of Canada; provided further that goods transported or towed in or by any vessel not permitted to engage in the Canadian coasting trade, contrary to this regulation, shall be seized and forfeited."

Customs officers in British Columbia have been notified that the regulations given above are not intended to interfere at present with transit privileges accorded heretofore on Pacific coast waters. It was at first thought the regulations would prevent U.S. vessels carrying Canadian goods from Vancouver, Victoria and other B.C. ports to the north for the Yukon, etc. The circular to B.C. customs officers reads as follows:—"You are instructed that U.S. steamers may transport from customs ports in B.C. goods destined for the Yukon territory or Alaska via St. Michael, during 1903. Goods arriving at seaports in B.C. in transit in bond may be entered for exportation to St. Michael on the usual form. Goods of Canadian origin, or foreign goods, duty paid in Canada, when transported as aforesaid, may be admitted into the Yukon territory free of duty if the invoices thereof are certified by the Canadian exporter before the customs officer."

The C.P.R. has 47 watch inspectors located along its lines from the Atlantic to the Pacific. They are watch dealers of high standing, and some of them have as many as 400 of the Co.'s employes submit watches to them twice a month for careful comparison, rating and regulation, as all watches of train employes require to be kept within a limit of 30 seconds from actual standard time. R. J. E. Scott, Chief Inspector of Time Service, recently made an inspection trip from Montreal to Vancouver and checked all the comparison clocks on the way. As a proof of the accuracy of the system it may be stated that the average error from actual standard time was slightly less than four seconds.

The new railway arbitration bill, which Sir W. Mulock will bring before the Dominion Parliament, has been prepared, and proposes the establishment of a special board of arbitrators to deal with each case as it arises. Each party to the dispute is to appoint an arbitrator, and these two will appoint the third. It is proposed to give the board power to summon witnesses to give evidence. Witnesses will get free transportation. The arbitrators will be paid their travelling expenses, and, exclusive of the chairman, will be paid \$10 a day. The allowance of the chairman will be fixed by the Government.

The Leeds and Grenville county council has decided to petition the Ontario Legislature to amend the Assessment Act so as to enable municipalities to assess railways, taking into consideration the value of the road-bed, having regard to the improvements placed on the right of way.

RAILWAY FINANCE, MEETINGS, ETC.

Alberta Ry. and Coal Co.—Application has been made to the Committee of the London, Eng., Stock Exchange for the listing of this Co.'s £250,000 4% A. debenture stock and £650,000 B. debenture stock.

Algoma Central and Hudson Bay Ry.—A special general meeting of shareholders was held at Sault Ste. Marie, Ont., Feb. 10, to authorize the issue of bonds.

We are officially informed that the issue of these bonds is merely one incident of the readjustment of the affairs of the Consolidated Lake Superior Co. and its relation to its subsidiary companies. There will be no public is-

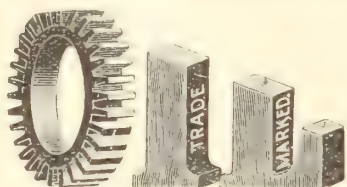
sue of these bonds, and if issued at all they will be simply issued to the C.L.S. Co. to represent advances made to the respective subsidiary companies. They will in no way change the position of the railway company before the public.

British Columbia Electric Ry. Co.—Earnings and expenses for Dec., 1902:—

	1901.	1902.	Increase or Decrease.
GROSS EARNINGS.			
Railway—Vancouver division	\$10,205	\$12,572	\$2,367+
Victoria "	9,399	9,593	194+
Westminster "	8,141	9,000	859+
Lighting—Vancouver division	18,828	22,877	4,049+
Victoria "	10,355	11,827	1,472+
	56,931	65,878	8,947+

Less working expenses	30,816	35,943	5,127+
	26,115	29,935	3,820+
Renewal funds	3,458	4,222	764+
Net income	22,657	25,713	3,056+
Gross earnings, July 1 to Dec.			
31	394,744	342,511	37,767+
Net earnings, July 1 to Dec. 31.	\$111,948	\$119,768	\$7,760+

Brockville, Westport and Sault Ste. Marie Ry.—A New York syndicate purchased this line for \$160,000 at the sale recently held at Brockville, under the foreclosure proceedings instituted by the Knickerbocker



For Steamboats AND RAILWAYS

Vacuum Oils Reduce Friction, thus saving Coal and preserving Machinery.

VACUUM 600 W. CYLINDER
VACUUM No. 1 MARINE ENGINE (better than Lard)
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Taste and elegance combined with a solidity of manufacture have placed our firm in the first rank in the Dominion.

Fur Show Rooms open at all seasons.

Catalogue and Price List sent on application.

Holt, Renfrew & Co.
TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1901, gives the following statistics for the year:

	ACRES.	AVERAGE YIELD.	TOTAL.
Wheat	2,011,835	25.1 bus.	50,502,085 bus.
Oats	689,951	40.3 "	27,796,588 "
Barley	191,009	34.2 "	6,546,155 "
Potatoes	24,429	196. "	4,797,433 "

STOCK.

Number of stock in the Province, July 1, 1901:
Horses 142,080 | Sheep | 22,960 || Cattle | 263,168 | Pigs | 94,680 |
| Value of Dairy Products | | | \$926,314 |

18,375 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1899—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,600,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

For full information, maps, etc., **FREE**, address **HON. R. P. ROBLIN**, Minister of Agriculture and Immigration, Winnipeg, Manitoba.
Or **JAMES HARTNEY**, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.

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& HUDSON RIVER R. R.
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FARMING IN THE SOUTH.

The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free, Circulars as they are published from month to month.

The Local Agent is asked to note Cheap Rates to all the North West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. December folder is a good one. Get it!

G. B. WYLLIE,

Canadian Passenger Agent,

210 ELLICOTT SQUARE, BUFFALO, N.Y.

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TORONTO, CANADA

SPRING MEETING

MAY 23rd to JUNE 6th

TWELVE DAYS

Six or More Races Each Day

THE KING'S PLATE

WILL BE RUN ON

SATURDAY MAY 23rd.

WM. HENDRIE
President

W. P. FRASER
Sec.-Treas.

GOD SAVE THE KING

Trust Co. of New York, trustee for the bondholders. Of the \$1,125,000 of bonds outstanding there are only \$160,000 held in Brockville and vicinity. The litigation, resulting in the sale, was initiated by the Philadelphia Investment Co. in 1897, when a receiver was appointed, and has been fought by a number of judgment creditors. The syndicate, which comprises J. Gerken, C. P. King, H. W. Gennerich and a number of others, obtained control of the bonds held by the Philadelphia Investment Co., for \$150,000, which sum was bid by the representative of the P. I. Co. at the sale, the New York representative bidding \$160,000 and securing the property. The new owners propose putting the line in thorough order, adding new equipment and making an extension. It is proposed to issue \$1,000,000 of 4% bonds, \$500,000 of 6% preferred stock, and \$500,000 of ordinary stock. The judgment creditors, of whom the principal has a claim for \$90,000 for rails supplied, are taking action, with a view of having their claims satisfied in some way or other. An extension of one month has been granted the purchasers to complete the purchase in order to enable an agreement to be made. (Jan., pg. 27.)

Calgary and Edmonton Ry.—Net earnings for Dec., 1902, \$29,938.96, against \$30,694.50 for Dec., 1901. Net earnings for 12 months ended Dec. 30, 1902, \$279,519.63, against 189,425.19 for same period 1901.

Canada Atlantic Ry.—In connection with the negotiations between the Canadian Northern Ry. and the Great Northern Ry. of Canada, press reports stated that negotiations were also in progress by which the C.A. Ry. was also to become part of the C.N. Ry. system, and that C. J. Booth, the President, would become a director of the C.N.R. Mr. Booth states that no negotiations to this end are in progress.

Canada Coals and Ry. Co.—The bondholders met recently in Montreal to consider resolutions passed by the shareholders at the annual meeting, with the object of providing working capital.

Canada Eastern Ry.—Alexander Gibson (Ltd.), is the name of the Co. to which a charter has been granted, under the New Brunswick Companies' Act, to take over the property of the Alexander Gibson Ry. and Manufacturing Co., which includes the Canada Eastern Ry. The capital of the Co. is \$5,000,000, of which \$3,000,000 is to be ordinary and \$2,000,000 preferred stock. (Jan., pg. 27.)

Canadian Northern Ry.—Gross receipts are as follows:—

	1902.	1901.	Increase.
July.....	\$132,300	\$ 87,200	\$45,100
Aug.....	130,900	97,000	33,900
Sept.....	209,300	103,300	106,000
Oct.....	190,200	120,610	69,590
Nov.....	259,800	119,142	140,658
Dec.....	202,300	129,918	72,382
	\$1,124,800	\$657,170	\$467,630

Working expenses for Dec., 1902, \$146,300, against \$68,746, leaving net earnings \$56,000, against \$61,172 in 1901. Working expenses for six months from July 1 to Dec. 31, \$816,034; net earnings \$398,766, against \$382,780 gross and \$274,390 net for same period 1901.

Canadian Transfer Co.—At the recent annual meeting at Montreal the following were elected:—President, Col. Henshaw; other directors: H. Paton, C. Cassils, G. R. Starke, H. M. Allan; Manager and Secretary, F. M. McRobie.

Central Ontario Ry.—The end of the litigation in connection with this Co. is not in sight, and the recent efforts to bring about a settlement, when the line was ordered to be sold upon the application of the Toronto General Trusts Corporation, appear to have been

of no avail. The board of directors, acting up to the time of the ordering of the sale, through T. G. Blackstock, is making application to the Dominion Parliament to re-arrange the bonded indebtedness of the Co. and for other purposes. On the other hand, S. J. Ritchie, of Akron, Ohio, and his associates, who acquired the control about the time the sale was ordered, elected a new board on Oct. 2 last, but there was an allegation that the meeting was not legally called. Subsequent to the publication of the notice of application to Parliament by T. G. Blackstock, another appeared in the official gazettes of Canada and Ontario, signed by S. J. Ritchie, T. M. Kirkwood and R. Fraser, calling a meeting of shareholders to be held at Trenton on Feb. 2. This notice states that the subscribers, who represent one-fourth in value of the subscribed stock, had requested the directors (i.e., the board acting at the time the sale was ordered), to call a special meeting; that the directors had failed to do so, and the subscribers now did so under the statutory right conferred on them. At this meeting directors were elected, S. J. Ritchie being named Vice-President, and the position of the Company was considered. As a result of the meeting application was made Feb. 10, to Chief Justice Meredith for an injunction to restrain the new board from taking any steps in the matter, but it was refused. (Jan., pg. 27.)

The Chignecto Marine Transport Ry. Co. has re-appointed its trustees for a further period of three years, and the holders of deposited securities have passed the following resolution:—"That the period mentioned in condition 4 of the conditions endorsed on certificate of deposit be and it is hereby extended to Jan. 1, 1906, or such further period as may be determined at a subsequent meeting of the holders of deposited securities of the C.M. Transport Ry. Co., and that the said condition be henceforth read and construed as if 1906 were therein inserted instead of 1902." The Co. expended about \$4,000,000 upon its project for the construction of a ship railway to connect the Bay of Fundy and Northumberland strait, when the work had to be abandoned owing to the refusal of the Dominion Government to grant further extensions of time or subsidies. Negotiations are pending with a view of some compensation being given to the Co. for the large expenditure made, and it is reported that the Government is prepared to allow something.

Consolidated Lake Superior Co.—The New York banking firm of Speyer Bros. have advanced on loan to the C.L.S.Co. \$3,500,000 to cover present requirements, and negotiations are in progress for a permanent loan of a larger amount, in order to provide for the completion of all the enterprises which have been undertaken by the Co. T. C. Search, Vice-President, who has given up his other office as Treasurer, states that every effort will be devoted to the completion of the works under construction, the placing of all the Co.'s operations upon a paying basis, and that no further expansion of its undertakings is contemplated.

J. P. Hood succeeds T. C. Search as Treasurer, and G. Abbott, of Boston, has been elected a director, succeeding T. D. Culyer, counsel for Spryer & Co.

Dominion Atlantic Ry. Gross earnings for Dec., 1902, \$61,000, against \$68,606 for Dec., 1901; making for the year ended Dec. 31, \$977,040, against \$953,828 for same period 1901.

Press reports, which recently stated that Mackenzie, Mann & Co. were negotiating for the purchase of the D.A.R., are said by D. D. Mann to be without foundation.

Elgin and Havelock Ry.—The new officers are: President, R. E. Harris; Secretary-Treasurer, H. F. Stairs; other directors: R.

E. Harris, J. F. Stairs and B. F. Pearson. The syndicate which purchased the line consisted of B. F. Pearson, J. F. Stairs, R. E. Harris and C. H. Cahan, and they acquired the entire capital of \$100,000. The E. and H. Ry. has no bonded indebtedness. (Jan., pg. 27.)

Fort Erie Ferry Ry. Co.—The following were elected at the annual meeting recently held at Fort Erie, Ont.: President, F. J. Webber; Vice-President, P. Will; Treasurer, F. J. Webber; Secretary, E. A. Konzelman, all of Buffalo, N.Y.; Superintendent, W. H. Wharton, Fort Erie, Ont.

Great Northern Ry. of Canada.—A meeting of shareholders was called for Mar. 2, to approve and sanction the agreement for the purchase of the Montford and Gatineau Colonization Ry. (Jan., pg. 27. See also pg. 107.)

Guelph Jet. Ry.—The following were elected at the annual meeting at Guelph, Feb. 4: President, W. Bell; Vice-President, Mayor Hamilton; Secretary-Treasurer, Lt.-Col. Macdonald; Executive Committee, the President, Vice-President and J. M. Bond. The share of the receipts paid to the Guelph city council for 1902, was \$8,200. The line is operated by the C.P.R.

Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$102.75+

A dividend of 2% for the quarter was paid Jan. 2.

Hamilton Electric Light and Cataract Power Co.—At the annual meeting in Hamilton, Feb. 9, the retiring directors and officers were re-elected, and the following official statement was made: "With a view to extensions of the Co.'s plant at DeCew Falls and general enlargement of power-producing capacity, the Co. has decided to reincorporate with a view to enlargement of capital and general expansion. This the Co. is enabled to do, having secured a considerable addition to its water supply." On Feb. 5 the Hamilton Cataract Power, Light and Traction Co. was incorporated under the Ontario Companies' Act, with a capital of \$5,000,000, to take over the business of the H.E.L. and C.P. Co., and to extend the various businesses of the Co. The incorporators are Hon. J. M. Gibson, Attorney-General for Ontario; J. Dixon, J. W. Sutherland, J. Patterson, W. C. Hawkins, of Hamilton, Ont.; John Dickenson, of Glanford, Ont., and J. A. Kammerer, of Toronto.

Hamilton, Grimsby and Beamsville Electric Ry.—The following were elected at the annual meeting in Hamilton Jan. 26: President, C. J. Myles; Vice-President, W. J. Harris; Treasurer, A. H. Myles; other directors, L. Bauer, R. Ramsay, R. S. Morris, W. N. Myles; Manager and Secretary, G. Waller. The only change in the officers is that A. H. Myles succeeds R. S. Martin as Treasurer. No financial statement has been made public, but it is stated that the balance sheet shows the year's operations to be the most successful in the history of the line.

The Kent Northern Ry. was recently sold under an order of court, and was bought in by T. Ritchie, of Halifax, N.S., for \$3,500. It is understood that the purchase was made in trust for interested parties. (Dec., 1902, pg. 409.)

Kingston and Pembroke Ry.—The following officers were elected at the annual meeting Feb. 11: President, M. H. Folger, Kingston; Vice-President and General Manager, C. W. Spencer, Montreal; other directors: A. R. Creelman, K.C.; T. Tait, W. R. Baker, Montreal; B. W. Folger, W. D. Hart,

Kingston; W. D. Matthews, H. P. Timmerman, Toronto. It was decided to devote the surplus earnings to the improvement of the line.

Lake Erie and Detroit River Ry.—At a meeting of the shareholders of the Pere Marquette Rd., held recently, the purchase of the L.E. and D.R.Ry. was ratified. Press reports say that the entire capital stock of the latter Co. was acquired by the Pere Marquette Rd., at \$200 a share, payment for which will be provided by the issue of collateral trust bonds at 97½, the total issue being limited to \$2,870,000, bearing interest at 3% to 1905, and 4% thereafter until maturity Nov. 1, 1922. The National Trust Co., of Toronto, is trustee. The L.E. and D.R.Ry. has outstanding about \$3,000,000 of 1st mortgage bonds, equal to \$15,000 a mile. The new directors and officers are: President, F. H. Price; Vice-President and General Manager, M. J. Carpenter; other directors, F. H. Walker,

N. Erb and M. T. Cox. The President, in an interview after the meeting, stated that the Canadian offices of the Pere Marquette Rd. would be maintained at Walkerville, Ont. (Jan., pgs. 9 and 27.)

London and Port Stanley Ry.—The annual meeting was held in London, Ont., Jan. 28. The financial statement showed receipts of

\$13,168.12, made up of rental from Lake Erie and Detroit River Ry. for 12 months to Dec. 30, \$10,000; interest as rental to same date, \$2,596.60, and percentage in surplus earnings of 1901, \$571.52. The payments were: miscellaneous, \$553.40, and city of London interest account \$12,614.72. The report of the preceptors referred to certain matters in dis-

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pute between the Co. and the L.E. and D.R. Ry., and the G.T.R., and they were given further powers to deal with the same. The following were elected: President, Mayor Beck; Vice-President, Alderman Cooper; other directors: W. H. Winnett, C. B. Hunt, H. M. Douglas, Aldermen Campbell, Judd, Greenlees, Matthews and Abram. The board was authorized to issue \$85,000 of debentures in favor of the city of London, to pay for bridges and other alterations on the line, and the city solicitor was instructed to take the necessary steps to secure the consolidation of the Co.'s debt.

Application will be made next session of the Dominion Parliament for an act authorizing the calling in of the mortgage bonds and debentures outstanding and redeeming them by the issue of 5% 1st mortgage bonds or debentures redeemable in Aug., 1913, and other financial powers in relation thereto.

Manitoba Ry. Co.—The Northern Pacific and Manitoba Ry., the Portage and North Western Ry., the Waskada and North Eastern Ry., and the Winnipeg Transfer Ry. companies, have been amalgamated under an agreement of Dec. 6, 1902, under the title of the Manitoba Ry. Co., and the agreement has been approved by the Governor-in-Council.

Manitoulin and North Shore Ry.—A meeting of shareholders was held at Sault Ste. Marie, Ont., Feb. 10, to authorize the issue of bonds.

Midland Ry. of Nova Scotia.—W. G. Reid, who had the general contract for the construction of this line, had a claim for \$176,000 against the Co. for work done, and the Co. had a counter-claim for a similar amount. As a result of a conference between W. D. Reid, Vice-President of the Reid Newfoundland Co., representing the contractor, and the officials of the Co., it was decided to refer all matters in dispute to Messrs. Lyall and Massey, who had power to call in a third arbitrator. Press reports state that a settlement of all the questions involved has been effected.

Montford and Gatineau Colonization Ry.—Application will be made Mar. 3 to the Governor-in-Council for the approval of the agreement for the sale of this line to the Great Northern Ry. of Canada. The copies of the deed of sale were filed with the Secretary of State, at Ottawa, Feb. 10, on which day a meeting of shareholders held in Montreal approved of the sale.

Montreal Street Ry.—Earnings and expenses for Jan.

	1903.	1902.	Increase.
Passenger earnings	\$168,882.69	\$153,374.20	\$15,508.49
Miscellaneous earnings	3,260.46	1,655.58	1,604.88
Total earnings	172,143.15	155,029.78	17,113.37
Operating expenses	110,610.98	100,538.82	10,072.16
Net earnings	61,532.17	54,490.96	7,041.21
Fixed charges	16,516.48	15,094.14	1,422.34
Surplus	45,015.69	39,396.82	5,618.87
Expenses % of car earnings	65.49	65.55	

Oct. 1 to Jan. 31, 1903.

	1903.	1902.	Increase.
Passenger earnings	\$692,191.01	627,827.46	64,363.55
Miscellaneous earnings	11,597.41	6,371.48	5,225.93
Total earnings	793,788.42	634,198.94	69,589.48
Operating expenses	424,575.83	387,845.93	36,729.90
Net earnings	279,212.59	246,353.01	32,859.58
Fixed charges	65,990.25	59,630.20	6,360.05
Surplus	213,222.34	186,722.81	26,499.53
Expenses % of car earnings	61.28	61.78	

Interest on M.P. & I. Ry. Co.'s bonds owned by this Co. not included.

In the action brought by the city to recover \$21,050.87 on percentage account, the Co. submitted that it was not called on to pay the city a percentage on the receipts for that portion of its lines outside the city limits. This view was taken by the Court of King's Bench, and has been affirmed by the Court of Appeal. It is expected that the city will take the case to a higher court.

The recent strike resulted in a net loss to the Co. of \$5,000, and the extra cost of operation on account of the 10% increase in wages is estimated to be \$75,000 a year.

Morden and Northwestern Ry.—The agreement amalgamating this Co. with the Canadian Northern Ry., under the latter title, has been filed with the Secretary of State at Ottawa.

Niagara Gorge Rd.—The following are the officers for 1903: President, J. T. Jones; Vice-President, H. P. Bissell; Treasurer and General Manager, B. L. Jones; other directors: C. M. Bushnell, J. H. Metcalfe, J. A. Jones, R. R. Hefferd, W. H. Hotchkiss, R. E. Powers, and W. C. Cornwell. At the annual meeting it was decided to keep the line open all winter.

Niagara, St. Catharines & Toronto Ry. Co.—The annual meeting was held at St. Catharines, Ont., Feb. 18. Following are the results of the operation, for the year 1902, of the railway and of the subsidiary, the Niagara, St. Catharines & Toronto Navigation Co., which operates the steamers Lakeside and Garden City between Port Dalhousie and Toronto:

	1902.	1901.
Gross earnings	\$172,840.11	\$155,553.28
Operating expenses	126,752.82	104,257.58
Net earnings	\$46,087.29	\$51,295.70

The large increase in the operating expenses is stated to be due to the fact that, in addition to handling increased business, considerable sums were charged to earnings on account of improvements and betterments which formerly were charged to capital, and in addition some expenses incurred in 1901 were wiped out in 1902. The authorized capital is \$1,000,000, of which \$925,000 has been issued. The mileage is 34.73 miles, on which 5% bonds have been authorized at \$20,000 a mile, amounting to \$694,000. Of these \$100,000 remains in the treasury. The officers for the current year are: President, J. W. Herbert, New York; Vice-President, A. P. Colvin, Glen's Falls, N.Y.; Secretary-Treasurer, A. E. Jarvis, Toronto; other directors: J. A. Powers, Lansingburg, N.Y.; Z. A. Lash, J. W. Flavell, and J. H. Plummer, Toronto; General Manager, E. F. Seixas; Assistant Secretary-Treasurer, C. E. A. Goldman.

Nipissing and James Bay Ry.—Mackenzie, Mann & Co., who own the charter for this line, and started construction near North Bay, Ont., in 1901, will, it is reported, apply to the Ontario Government for compensation, on the ground that the construction of the Government railway to Temiskaming has rendered their charter valueless.

Nosbonsing and Nipissing Ry.—The earnings for the past year were \$53,850, and the operating expenses \$45,076.23. The line is 5½ miles in length, and is a lumber-carrying line, between lakes Nosbonsing and Nipissing, Ont. T. Darling, of Wisawasa, is Superintendent.

Nova Scotia Central Ry.—A recent press report stated that Mackenzie, Mann & Co. were negotiating for the purchase of the N.S.C. Ry., which extends from Middleton, on the Dominion Atlantic Ry., to Lunenburg, N.S. The N.S.C. Ry. was acquired by Mackenzie, Mann & Co., in June, 1902.

Ottawa Electric Ry. Co.—At the annual meeting, recently held, the following were elected: President, T. Ahearn; Vice-President, P. Whalen; other directors: G. P. Brophy, W. Y. Soper, T. Workman, A. Lumsden, and Hon. G. A. Cox; Secretary-Treasurer, J. D. Fraser. The annual report showed that 7,097,232 passengers had been carried during 1902. This was a slight decrease as compared with the previous year, due largely to the long extended rainy season of the summer. Among the items of ex-

penses were the following: Snow clearing, \$12,000; taxes paid to city and county, \$4,925; mileage paid to city, \$8,490; total, \$25,415. Four quarterly dividends of 2% each were paid.

Application will be made next session of the Dominion Parliament for an Act increasing the bonding powers of the Co. and for other purposes.

Pere Marquette Rd.—By the purchase of the Lake Erie and Detroit River Ry., the P.M. Rd. has been enabled to complete arrangements to operate through traffic, delivering freight in Buffalo, N.Y., from Chicago and the west, via the Michigan Central Rd., from St. Thomas, Ont. The published earnings for the first week in Feb., 1903, for the extended road show an increase of \$31,500 against the total of the earnings of the two lines for the same period in 1902.

Preston and Berlin Ry.—Negotiations are reported to have been going on for some time between J. Patterson, of Hamilton, who constructed the P. and B. Ry., and the C.P.R., with a view to the purchase of the line by the latter. Mr. Patterson recently stated that no decision had been reached.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for Dec., 1902, \$1,274.75, against \$5,673.43 for Dec., 1901. Net earnings for year ended Nov. 30, 1902, \$68,160, against \$6,583 for same period, 1901.

In respect of the interest on the 6% 1st mortgage bonds due Feb. 1, £1 rs. was paid in cash, and certificates given for the balance of £1 19s.

Quebec Bridge Co.—A deed of mortgage on the Co.'s property to secure an issue of bonds has been deposited with the Secretary of State at Ottawa. (Jan., pg. 27.)

Quebec Ry., Light and Power Co.—Application will be made next session of the Dominion Parliament for an act authorizing the issue of preference stock, defining the respective rights of the holders of preference and common stock, and to authorize, under certain circumstances, the cancellation of the common stock.

Press reports state that negotiations are in progress with a view of the amalgamation of the Q. R., L. and P. Co. and the Jacques Cartier Power Co.

Quebec Central Ry.—Gross earnings for Dec., 1902, \$45,464.23; working expenses, \$41,859.60; net earnings, \$3,604.63; against \$42,647.11 gross and \$8,736.01 net for Dec., 1901. Gross earnings for 12 months ended Dec. 31, 1902, \$667,621.59; net earnings \$201,669.48, against \$622,716.13 gross and \$200,551.28 net for same period 1901.

Quebec and Lake St. John Ry.—Gross earnings for Dec., 1902, \$33,600, against \$30,017 for Dec., 1901; making for 12 months \$414,652, against \$381,534 for same period 1901.

Quebec Southern Ry.—The employees on a section of this line from Sorel to Noyan Jct., struck Jan. 20, on account of their wages being in arrears, and traffic was suspended. The South Shore division, from St. Lambert to St. Francois du Lac, was not affected, neither was the operation of the Rutland Rd.'s trains between Noyan Jct. and Iberville Jct., except that the R. Rd. had to find its own signalmen. Up to Feb. 20 traffic had not been resumed.

This is not the only difficulty confronting the Co., as in addition to the action instituted on behalf of the holders of shares in the South Shore Ry., to have the amalgamation quashed, four other actions have been entered in the Quebec courts. The Rutland Rd. has taken summary action to recover \$51,150 for money advanced; the George Hall Coal Co. wants to recover \$2,800 balance of a coal bill; J. N. Greenshields, K.C., is suing for \$5,888 for professional services; and the St. Hyacinthe

Bank, is seeking to recover from the United Counties Ry., a former title of the Q.S.R., several thousand dollars on a promissory note. The action re the South Shore Ry. amalgamation came before the courts Feb. 18 on a motion to commit H. A. Hodge, President, for contempt of court in neglecting to produce certain books, and the motion was enlarged, Mr. Hodge having attended court and promised to produce the books.

The South Shore division is also involved in some legal difficulties of its own. The Hochelaga Bank secured judgment for \$56,247 for money advanced, and a writ for the seizure of the property has been in the hands of the sheriff since Jan. 1. Suit has also been commenced by Hon. R. Prefontaine, Minister of Marine, to recover \$54,000 money advanced at the time of the purchase of the Great Eastern Ry. some years ago.

Suggestions have been made that the Dominion Government should purchase the South Shore line and operate it in conjunction with the I.C.R.

The Shawinigan Falls Terminal Ry. Co. will apply at the next session of the Quebec Legislature for power to borrow to the extent of 75% of its paid-up capital, and pledge its property as security therefor.

Shuswap and Okanagan Ry.—Net earnings for nine months ended Sept. 30, 1902, \$10,838, against \$9,839 for same period 1901.

The St. John's, Nfld., Street Ry. was in operation for nine months to Dec. 31, 1902, the gross receipts being \$23,102.95, out of which 2% or \$462.05 has been paid to the city.

St. Thomas Electric Ry.—The city clerk of St. Thomas recently stated that the line was doing one-third more business than it had done under the old company's management.

Temiscouata Ry.—Net earnings for Nov., 1902, \$197.

Toronto, Hamilton and Buffalo Ry.—Earnings for Jan. \$41,379.78, against \$34,405.15 for Jan., 1902; making for eight months ended Jan. 31 \$300,801.20, against \$312,325.50 for same period 1901-2.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—It is understood that the V. V. and E. Ry. and N. Co. is now entirely controlled by the Great Northern Ry., U.S. Mackenzie, Mann & Co. previously held a considerable interest in the charter.

An action is before the courts at Victoria concerning the share capital of the Co. Dr. Milne at one time held about one-half of the stock, and during his absence in England gave R. Hall, of Victoria, power of attorney to dispose of it. Hall sold the stock for \$22,000, a depreciated value under the then existing circumstances, and it is alleged by Dr. Milne that D. G. Macdonnell, a Vancouver barrister, wrongfully misrepresented facts to Hall, and so induced him to sell the stock. The action is for damages.

Vancouver, Westminster and Yukon Ry.—Application will be made Mar. 12 at Ottawa for the approval of the purchase by the V.W. and Y. Ry. Co. of the charter and assets of the Vancouver, Westminster, Northern and Yukon Ry. Co.

White Pass and Yukon Ry.—Gross earnings from July 1 to Dec. 31, 1902, \$1,133,978.

We were officially informed recently that the press reports sent out from Seattle, Wash., that the transfer of the offices to Vancouver, B.C., had been made with a view of transferring the line to the C.P.R., were without foundation.

Yarmouth Street Ry.—This Nova Scotian street railway, the third to be operated by electricity in the Dominion, has been in operation since 1892. It has not paid, and was closed down Feb. 3. The Co., in addition to running the street car service, supplied current for lighting, heating and power purposes in the own.

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(Continued from third page of Cover.)

Steam Shovels

James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Steel

James Cooper.....Montreal.
B. J. Coghlin & Co.....Montreal.
Wm. Jessop & Sons.....Sheffield, Eng.
Rice Lewis & Son.....Toronto.

Steel Buildings

Dominion Bridge Co.....Montreal.

Steel Plate

Jas. W. Pyke & Co.....Montreal.

Steel Tires

B. J. Coghlin & Co.....Montreal.
Latrobe Steel Co.....Philadelphia, Pa.
Jas. W. Pyke & Co.....Montreal.

Structural Metal Work

Dominion Bridge Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Switches

Canada Switch and Spring Co.....Montreal.

Switch Lamps

The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto

Switch Ropes

The B. Greening Co.....Hamilton, Ont.

Switch Targets

Acton Burrows Co.....Toronto.

Tanks and Tank Fixtures

Ontario Wind Engine and Pump Co.....Toronto.

Telegraph and Telephone Office Signs

Acton Burrows Co.....Toronto.

Tie Plates

B. J. Coghlin & Co.....Montreal.

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The Hudson's Bay Company.....

Toilet Paper

The Hudson's Bay Company.....

Tools

Rice Lewis & Son.....Toronto.

Track Jacks

James Cooper.....Montreal.
Duff Manufacturing Co.....Allegheny, Pa.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

Track Tools

Canada Switch and Spring Co.....Montreal.
James Cooper.....Montreal.
Rice Lewis & Son.....Toronto.
W. H. C. Mussen & Co.....Montreal.

Tramway Equipment

James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.
J. J. Gartshore.....Toronto.

Trucks (Electric Car)

Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Switch and Spring Co.....Montreal.

Trucks (Warehouse and Express)

Rice Lewis & Son.....Toronto.

Turntables

Dominion Bridge Co.....Montreal.

Varnishes

McCaskill, Dougall & Co.....Montreal.

Vessels

Polson Iron Works.....Toronto.

Waste

B. J. Coghlin & Co.....Montreal.
Rice Lewis & Son.....Toronto.
N. L. Piper Ry. Supply Co.....Toronto.
The Queen City Oil Co.....Toronto.

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Dominion Wire Rope Co.....Montreal.
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W. H. C. Mussen & Co.....Montreal.
The Wire and Cable Co.....Montreal.

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E. F. Phillips Electrical Works, Ltd.....Montreal.

Wire, Electric

E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

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E. F. Phillips Electrical Works, Ltd.....Montreal.
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Yachts

Polson Iron Works.....Toronto

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Aerated Waters E. L. Drewry. Winnipeg.	Door Signs Acton Burrows Co. Toronto.	Mohair The Hudson's Bay Company.
Air Brakes & Fittings Westinghouse Mfg. Co. Hamilton, Ont.	Dry Goods The Hudson's Bay Company.	Numbers Acton Burrows Co. Toronto.
Ales E. L. Drewry. Winnipeg.	Electric Car Route Signs Acton Burrows Co. Toronto.	Oakum Rice Lewis & Son. Toronto.
Anchor Rice Lewis & Son. Toronto.	Electric Cranes Dominion Bridge Co. Montreal.	Oils The Hudson's Bay Company.
Axles Jas. W. Pyke & Co. Montreal.	W. H. C. Mussen & Co. Montreal.	Galena-Signal Oil Co., Franklin, Pa., & Toronto.
Rhodes, Curry & Co. Amherst, N.S.	Enameled Iron Signs Acton Burrows Co. Toronto.	The Queen City Oil Company. Toronto.
Babbitt Rice Lewis & Son. Toronto.	Engines, Stationary & Marine Polson Iron Works. Toronto.	Office Signs Acton Burrows Co. Toronto.
Blankets & Bedding The Hudson's Bay Company.	Engraving Acton Burrows Co. Toronto.	Packing Gutta Percha and Rubber Mfg. Co. Toronto.
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Rice Lewis & Son. Toronto.	Expanded Metal Expanded Metal and Fire-Proofing Co. Toronto.	Pinch Bars The Hiram L. Piper Co. Montreal.
Boat Fittings & Hardware Rice Lewis & Son. Toronto.	Express Office Signs Acton Burrows Co. Toronto.	The N. L. Piper Railway Supply Co. Toronto.
Boiler Covering Mica Boiler Covering Co. Montreal.	Fencing Canadian Steel and Wire Co. Hamilton, Ont.	Pipe Covering Mica Boiler Covering Co. Montreal.
Boilers Polson Iron Works. Toronto.	Page Wire Fence Co. Walkerville, Ont.	Plushes The Hudson's Bay Company.
Boiler Tubes B. J. Coglin & Co. Montreal.	Fire-Proofing Expanded Metal and Fire-Proofing Co. Toronto.	Porter E. L. Drewry. Winnipeg.
Jas. W. Pyke & Co. Montreal.	Flags Rice Lewis & Son. Toronto.	Portland Cement Rice Lewis & Son. Toronto.
Bolsters Simplex Railway Appliance Co. Montreal.	The Hudson's Bay Company.	Printing The Hunter, Rose Co. Toronto.
The Ogilvie Flour Mills Co. Montreal.	Flour The Hudson's Bay Company.	The Mail Job Printing Company. Toronto.
Bolts Rice Lewis & Son. Toronto.	Foghorns Rice Lewis & Son. Toronto.	Pumps Rice Lewis & Son. Toronto.
Brake Beams Simplex Railway Appliance Co. Montreal.	Gates Page Wire Fence Co. Walkerville, Ont.	Railway Supplies The N. L. Piper Railway Supply Co. Toronto.
Brass and Copper Cloth The B. Greening Co. Hamilton, Ont.	General Supplies The Hudson's Bay Company.	Rail Joints Montreal Rolling Mills Co. Montreal.
Brass Castings St. Thomas Brass Co. St. Thomas, Ont.	Grain Elevators John S. Metcalfe Co. Chicago, Ill.	Rails (New) James Cooper. Montreal.
Bridge Numbers Acton Burrows Co. Toronto.	Groceries The Hudson's Bay Company.	Drummond, McCall & Co. Montreal.
Bridges Dominion Bridge Co. Montreal.	Hardware Rice Lewis & Son. Toronto.	J. J. Gartshore. Toronto.
Buoy Lighting Safety Car Heating and Lighting Co., New York	The Hudson's Bay Company.	T. A. Morrison & Co. Montreal.
Safety, Electric E. F. Phillips Electrical Works, Ltd., Montreal.	Headlights N. L. Piper Railway Supply Co. Toronto.	W. H. C. Mussen & Co. Montreal.
The Wire and Cable Co. Montreal.	Hose Gutta Percha and Rubber Mfg. Co. of Toronto.	Rice Lewis & Son. Toronto.
Cables, Feeder E. F. Phillips Electrical Works, Ltd., Montreal.	Rice Lewis & Son. Toronto.	Roof Trusses Dominion Bridge Co. Montreal.
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Carpets The Hudson's Bay Company.	Journal Bearings Jas. W. Pyke & Co. Montreal.	The N. L. Piper Railway Supply Co. Toronto.
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Car Wheels Jas. W. Pyke & Co. Montreal.	Lager Beer, &c. E. L. Drewry. Winnipeg.	Shipbuilders' Tools & Supplies Rice Lewis & Son. Toronto.
Rhodes, Curry & Co. Amherst, N.S.	Lamps & Lanterns The Hudson's Bay Company.	Ship Lamps The Hiram L. Piper Co. Montreal.
Castings Canada Switch and Spring Co. Montreal.	Rice Lewis & Son. Toronto.	The N. L. Piper Railway Supply Co. Toronto.
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Cement Machinery Jas. W. Pyke & Co. Montreal.	Launches Polson Iron Works. Toronto.	The Hudson's Bay Company.
Chains Rice Lewis & Son. Toronto.	Life Insurance Independent Order of Foresters. Toronto.	Rice Lewis & Son. Toronto.
Coal Haulage Ropes The B. Greening Co. Hamilton, Ont.	Travelers' Insurance Co. Montreal.	Side Bearings Simplex Railway Appliance Co. Montreal.
Concrete Mixers W. H. C. Mussen & Co. Montreal.	Lights, Contractors and Wrecking James Cooper. Montreal.	Signal House Numbers Acton Burrows Co. Toronto.
Contractors' Plant James Cooper. Montreal.	W. H. C. Mussen & Co. Montreal.	Signals The Hiram L. Piper Co. Montreal.
T. A. Morrison & Co. Montreal.	Linoleum and Floor Coverings The Hudson's Bay Company.	N. L. Piper Railway Supply Co. Toronto.
W. H. C. Mussen & Co. Montreal.	Locomotives (Compressed Air) American Locomotive Co. New York, N.Y.	Signs Acton Burrows Co. Toronto.
Cross Arms, Top Pins & Side Blocks The Firstbrook Box Co. Toronto.	Baldwin Locomotive Works. Philadelphia, Pa.	Snow Ploughs Rhodes, Curry & Co. Amherst, N.S.
Crossing Gates The N. L. Piper Railway Supply Co. Toronto.	Locomotives (Electric) American Locomotive Co. New York, N.Y.	Spikes Rice Lewis & Son. Toronto.
Curtains The Hudson's Bay Company.	Baldwin Locomotive Works. Philadelphia, Pa.	Springs Canada Switch and Spring Co. Montreal.
Cuts Acton Burrows Co. Toronto.	Locomotives (Rack) American Locomotive Co. New York, N.Y.	B. J. Coglin & Co. Montreal.
Derrick Ropes The B. Greening Co. Hamilton, Ont.	Locomotives (Steam) American Locomotive Co. New York, N.Y.	Station Name Signs Acton Burrows Co. Toronto.
	Baldwin Locomotive Works. Philadelphia, Pa.	Steamboats Polson Iron Works. Toronto.
	Locomotives (Steam) American Locomotive Co. New York, N.Y.	Steamboat Signs Acton Burrows Co. Toronto.
	Baldwin Locomotive Works. Philadelphia, Pa.	Steam Couplers Safety Car Heating and Lighting Co., New York
	Canadian Locomotive Co. Kingston, Ont.	
	James Cooper. Montreal.	
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(Continued on preceding page.)

(Continued on preceding page.)

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THE MANITOBA GRAIN ACT.

The Dominion statute of 1900, known as the Manitoba Grain Act, is based largely upon the Minnesota Grain Law. In Minnesota, which has been a wheat-shipping state for many years, the conditions of production and transportation are almost identical with those on the Canadian side of the line. Moreover, practically all the wheat raised in Dakota finds its way to Minneapolis or Duluth, coming under the supervision of Minnesota officials and the jurisdiction of the Minnesota law. The experience which the people of these two states have acquired in the handling and shipments of immense crops of grain is quite unique; consequently, those who in framing the Manitoba law undertook to depart from the Minnesota law in one or two important particulars ran a good deal of risk.

The principal difference between the grain trade of Manitoba and that of Minnesota at present is that whilst the Minnesota farmer feels safe in the hands of the elevator man, and uses the elevators well-nigh exclusively, the Manitoba farmer clamors for loading platforms and flat warehouses. The platform or warehouse is to the elevator what the old-fashioned cradle is to the modern self-binder, in other words, its use greatly retards the shipment of the crop—a serious thing when one bears in mind that new wheat seldom begins to move until well into October, while lake navigation closes at the end of November, leaving not more than six or eight weeks for transportation.

In Minnesota, marketing and shipment are regulated by the general railroad law and the warehouse and grain laws, which are administered by the Railroad and Warehouse Commission, a body consisting of three members, assisted by a large staff of officers. When a complaint is made against an elevator, as, for instance, for using false weights, unfair grading, unreasonable dockage for dirt, discrimination, pooling or combination against the farmers, one of the travelling inspectors goes to the scene, and either holds an investigation himself or submits the principal facts to the commissioners, who forthwith hold one, the commissioners dealing with the more important matters. It has been found that prompt action in such matters is essential to the maintenance of good relations between farmers and elevator men. The commissioners and their officers are carefully chosen, stand aloof from politics, and are removable only for cause. During the discussion of the Manitoba Grain Act at Ottawa it was stated that the Minnesota officials were "dismissed

every three or four years, or whenever the State Government changed its political complexion." This is a mistake. The Republicans have held power in Minnesota for 40 years with the exception of one term; and since 1885, when the State took hold of the grain trade, every effort has been made to secure and retain good officials. The penalties for violating the laws are severe, ranging from cancellation of license to fine or imprisonment; further, on the report of the commissioners the District Attorney may bring civil

have confidence in the Commission and its employees, inasmuch as they can rely on an immediate and impartial investigation whenever friction arises. The farmers are at liberty to use loading platforms and warehouses or to load direct from wagons into cars; there is virtually no restraint upon the employment of such methods. As a matter of fact, however, platforms and warehouses are maintained more as a check upon the elevators than for general use. The farmer uses the elevator in preference simply because it facilitates the movement of the whole crop, and saves him, individually, much time, labor and anxiety.

The Manitoba Grain Act, on the other hand, while making elaborate provisions against improper practices by elevator men, contains no machinery worthy of the name for enforcing those provisions. The Chief Warehouse Commissioner, C. Castle, who is an excellent officer, is virtually left to apply the law all by himself. He has no staff to speak of, is kept too busy in his office at Winnipeg to be able to move about and hold enquiries, and has no inspectors under him to conduct investigations on the spot and get at the bottom of newspaper complaints, which, once started, have the faculty of a snowball for growing as they travel. The upshot is that the farmers are easily led to believe that the present Act is neither more nor less than a device got up in the interest of the elevator companies. This suspicion gives rise to the demand for loading platforms, and the use of platforms results in the locking up of rolling stock in station yards at a time when swift despatch is vital; then comes the "hold-up" of the farmer by unscrupulous buyers on the pretext that they will not be able to get the wheat east until spring. The farmer who is victimized is apt to lay the blame upon the railway, or upon the elevator companies in general, when in reality the fault is his own or that of Parliament in not having provided sufficient machinery for protecting him.

To take an actual case; for a while last fall there was a considerable difference in the price paid for wheat at Manitoba points and the price paid at adjacent points in Minnesota and Dakota. Certain Manitoba newspapers at once insisted that this was due to the extortionate rates charged by the C.P.R., and some of the farmers, as well as some of the grain buyers, joined in the cry. It was soon shown, however, that from all the Canadian points in question, C.P.R. rates to Fort William were precisely the same as Great Northern or Northern Pacific rates to Duluth from the



E. A. JAMES,
General Superintendent, Canadian Northern Railway.

actions against elevators in the name of the complaining farmer, but at the expense of the State. On the opening of the shipping season, the commissioners travel up and down in order to see that a good start is made, to listen to grievances, and to ascertain if any new features have developed which may require special attention. The travelling inspectors are, however, the immediate instruments in protecting the farmer from the elevator man. A complaint in a newspaper is investigated as promptly as a formal complaint to the Commission. Farmers and elevator men alike

Continued on page 111A

THE RAILWAY & SHIPPING WORLD,

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URER, S. F. Underwood, Montreal.
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SECRETARY, G. C. Wells, Montreal.
NEXT MEETING, Toronto, Ont., date not decided.

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de Martigny; Owen Sound, J. M. Wilson.

NEXT ANNUAL MEETING of the Grand Council in
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Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1902-03		1902-03	1901-02
July...	155,344.93	49,089.96	\$562,876.50	\$154,646.84
Aug...	130,723.83	50,747.82	473,064.86	105,871.16
Sept...	145,535.83	60,000.46	542,811.11	197,057.61
Oct...	270,616.23	150,572.06	952,645.35	405,655.62
Nov...	146,687.83	151,922.89	598,788.99	512,862.94
Dec...	377,382.61	132,151.16	1,683,289.45	343,261.78
Jan...	102,581.29	109,846.99	428,611.21	347,751.91
Feb...	183,554.82	78,039.43	749,235.13	256,156.70
	1,722,427.37	782,431.67	\$5,986,770.59	\$2,503,274.56

The New York Central Rd.'s Montreal
Passenger office, in charge of F. E. Barbour,
General Agent, is to be removed on Mar. 1
from 2263 St. Catherine st. to the corner of
St. James and St. Francois Xavier streets,
to the premises now occupied by the Inter-
colonial Ry. freight department, which will re-
move to the new Board of Trade building.
The N.Y.C. Rd.'s Montreal freight office, in
charge of H. S. Phillips, Commercial Agent,
is to be removed from the Stock Exchange
building to the new Board of Trade building.

The Appendix to vol. 2 of the Annual Fi-
nancial Review, just issued, completes the in-
formation regarding Canadian and other
companies, the shares of which are dealt in
on Canadian exchanges. The information is
carefully prepared and arranged for ready
reference. W. R. Houston, 22 St. John st.,
Montreal, is the publisher.

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Referring to the item in our last issue stat-
ing that the standard train rules went into
effect on the Canadian Northern Ry., on
March 1, we are informed that while it was
intended that the rules should have come into
effect on that date, the instruction of the em-
ployees in the new rules had not been complet-
ed, and that it would be about April 1 be-
fore they could be put in operation on the
system.

The C.P.R.'s exhibit at the Sportsman's
Show, which concluded at New York Mar. 7,
attracted general interest. A special feature
was a performance of Hiawatha, which form-
ed an attraction during the summer of 1902 at
Desbarats, Ont. The cast comprised 150
persons, of whom 25 were Indians from Sault
Ste. Marie, Caughnawaga and Nova Scotia.

The application of the Duluth, South Shore
and Atlantic Ry. for membership in the west-
ern interchangeable mileage bureau has been
granted, and that road is now a member.
Arrangements have been made whereby the
rate for interchangeable mileage over its lines
will be 2 1/2 c. a mile.

A paper on "Tide Level and Datum Planes
in Eastern Canada," read by Dr. W. B. Daw-
son, of the Tidal Survey branch of the De-
partment of Marine, at the recent annual
meeting of the Canadian Society of Civil
Engineers, has been published in pamphlet
form.

The Manitoba Grain Act.

(Continued from page 109.)

contiguous points on the U.S. side, and this, notwithstanding that in every instance the haul to Fort William was a good deal longer than the haul to Duluth. The difference arose in part, no doubt, from the exceptionally brisk demand for hard wheat by the Minneapolis and Duluth mills, which were paying a premium for the immediate delivery of futures in hard; as well, perhaps, as to the operations of Chicago "bull" speculators. Having discovered that the C.P.R. was not to blame, the Manitoba farmer along the frontier wheeled round and maintained, rightly or wrongly, that he was being robbed by the grain men; and, as no investigation was held, is probably of that mind still.

The farmer who has wheat to sell is not always the most reasonable man in the world. If his sample is poor, owing to the presence of dirt or from any other cause, and he is offered a lower price than that paid to a neighbour having a better sample, he is loth to blame himself, preferring to accuse the buyer of over-reaching him. So, too, he is disposed, if he cannot blame the railway, to blame the buyer, when, owing to exceptional circumstances, the price south of the line is higher than the price north. Those newspapers which pose as his champions, along with others having party ends to serve, encourage him in this belief, and in the end he accepts it as incontrovertible. From the press the grievance is transferred to Parliament, and dealt with by furious orators in search of his vote. There will be no chance of peace between farmers and buyers, or between the farmers and the railways, until Mr. Castle is in a position to dispatch inspectors to enquire into local grievances and to hold the more important enquiries himself. When that day arrives, provided the inspectors are men of probity, the farmer will begin to trust the elevator, and the scandal of having hundreds of cars held up day after day during the busy season at loading platforms or sidings will gradually disappear.

The President of the labor party in Manitoba, Wm. Scott, who cannot be accused of excessive friendship for the railways, dealt with the platform question in a letter to the Winnipeg Voice, in December last, in which he said:—

"The threats of our Ninga friends to blow up the elevators is an exact repetition of the machinery-smashing policy of the trades unions in the beginning of the last century. That policy, though mistaken, was not unjustifiable. Now, just as the improved machine took the bread out of the tradesman's mouth and sent him adrift as a tramp, or condemned him to factory wage-slavery, so the improved method of handling grain by means of elevators has been made the instrument of robbing the farmer of a large portion of the products of his fields. The robbery may have been sufficiently palpable to warrant the farmers in demanding remedial legislation, but legislation compelling the railway companies to load off the wagon is reactionary and parallel with the action of those economists who, perceiving the evils of the factory wage-slavery system, advise the people to go back to the good old times of hand manufacture."

Mr. Scott's criticism is sound, as far as it goes, but it does not go far enough—he should have condemned the Act for leaving the farmer at the mercy of the grain-buyer, that being the fount and origin of the whole trouble. When the Manitoba Grain Act was passed, one of the Minnesota commissioners pointed out this defect and predicted, what has come to pass, that it would arouse universal suspicion, lead the farmers to ship from platforms instead of elevators, and involve all concerned in an uproar, owing to the obstacles thus placed in the way of speedy shipment of the crop. Even without such artificial impediments, the Canadian railways would be at a serious disadvantage as compared with the railways south of the line, since the wheat-belt in Minnesota begins only 225 miles west of Duluth, whereas in Manitoba it begins at Winnipeg, 426 miles west of Fort William, though in reality not much wheat is grown

east of Portage la Prairie, 56 miles west. The western limit of wheat may be said to be Moose Jaw, over 800 miles from Lake Superior. Geography thus handicaps the Canadian lines, and when, on top of it, they are obliged to substitute the antiquated platform for the modern elevator, it is absurd to expect them to move the crop to Lake Superior as rapidly as the U.S. lines do.

In other instances, the authors of the Manitoba Grain Act, while trying to protect the farmer, have unwittingly done him harm. For example, section 58, as amended in 1902, provides that when cars are scarce they shall be apportioned to the applicants in order of their application, "until each applicant has received one car," after which, "the surplus cars, if any, shall be apportioned according to the requirements of each applicant." This section is copied from the Minnesota law, but an important variation has been made, the Minnesota law reading that in time of scarcity cars "shall be divided as equally as may be among the applicants until each shipper shall have received at least one car, when the balance shall be divided ratably in proportion to the amount of daily receipts of grain or other freight," etc.

An elevator of 30,000 bush. capacity, containing wheat belonging to 20 farmers, is full, and 20 other farmers are waiting to use it. Alongside is a platform or flat warehouse which affords accommodation to one-fifth of that number of farmers or probably less. Yet under the Manitoba Act the elevator is put on precisely the same footing as the platform in the distribution of cars. Imagine that an epidemic was raging at Ninga or Gretna, Man., that doctors were scarce and that the local hospital was crowded with patients, a few were in private houses; what would be said if, in the distribution of doctors, the law ordained that the few should rank with the many in receiving succor, one to the hospital, one to each private house? The Minnesota law takes note not of the order of the application alone, but of the quantity of grain being received at the elevators and platforms respectively, and bases distribution upon those proportions, the 20 farmers concerned in the elevator being, not unreasonably, favored with cars in preference to the four or five using the platform or warehouse. The effect of the Manitoba law last fall was to create a scarcity, which meant, of course, a cut in the price offered by grain-buyers, so that the last condition of the farmer was worse than the first. It was an every-day occurrence for elevator men and track-buyers to wire the General Superintendent of the C.P.R. at Winnipeg, offering to pay more for wheat than the current price if he would ignore section 58 and give them cars at once, instead of waiting until he had satisfied the requirements of the owner of a few wagon-loads of wheat at a platform. There was an unexpected demand for Manitoba wheat from Australia, where drought prevailed, but it could only be met in part. On this point the retiring President of the Board of Trade of Winnipeg said the other day:—

"Dealers have been handicapped in the Australian trade by the operation of the Manitoba Grain Act, which only permits an elevator to stand as one in a number of applicants for cars. In other words, if each of 20 farmers and an elevator place an order for cars with a railway station agent, the elevator can only secure one car in turn with all the other applicants, and, as farmers could not ship single cars to the Pacific Coast to meet the Australasian trade, it is apparent that either the grain buyer could not make any considerable shipment at one time, or else the railway company would have to violate the Grain Act by giving the number of cars necessary to transport a round lot of, say, 40,000 or 100,000 bush."

If the reader, who may not be a railway man, imagines that too much importance is attached to the absurd mode of distributing cars in Manitoba, let him reflect that for every car that can be loaded at a platform 60 can be loaded in the same space of time at an elevator. However, the farmers are not

likely to abandon platform-loading, with all its drawbacks to themselves and to the railways, until they have confidence in the elevator companies, and that can be restored, if at all, only by the reconstruction of Mr. Castle's department in such a manner as to insure the prompt treatment of complaints on the farmer's part by officials familiar with every phase of the grain trade, and honest and above-board in their findings.

Other defects in the Act might be pointed out, but probably these are sufficient to convince the Dominion Government that it needs amendment at the present session.

Putting aside the obstacles to rapid shipment thus artificially created, the railways had other difficulties to encounter. The unusually heavy spring rains filled the streams with alkali and vegetable matter, which found their way into the tanks and crippled the locomotives. In the fall, however, the rainfall was far below the average, so that towards the close of the season there was not water enough. Then, with the rush into the country of 40,000 settlers, who had to be fed and provided with other necessities and conveniences, west-bound traffic attained enormous proportions; while, on the other hand, the coal famine in the United States compelled the C.P.R. to haul an unusually large supply of fuel east from Lethbridge and Souris. It was quite as necessary that the people should be kept from freezing as that grain should be hurried to Lake Superior. Notwithstanding these and other adverse influences, the C.P.R. did splendid work in carrying wheat, the quantity taken to Fort William between Sept. 1 and the close of navigation on Dec. 6, 1902, being no less than 16,000,000 bush., or 3,000,000 more than during the same period of 1901. The Canadian Northern Ry. took to Port Arthur 4,283,946 bush. between Sep. 1 and Dec. 6, 1902.

April Birthdays.

Many happy returns of the day to Adam Brown, formerly President Wellington, Grey and Bruce Ry. (now G.T.R.), Vice-President G.N.W. Telegraph Co., and Postmaster of Hamilton, born at Edinburgh, Scotland, April 3, 1826.

A. H. Clark, Master Mechanic, Irondale, Bancroft and Ottawa Ry. at Irondale, Ont., born April 5, 1867.

G. M. Clark, K.C., Consulting Counsel C.P.R., Cobourg, Ont., born April 14, 1828.

A. P. Cockburn, ex-Manager and Treasurer Muskoka and Georgian Bay Navigation Co. at Gravenhurst, Ont., born in Finch tp., Stormont, Ont., April 7, 1837.

B. W. Folger, Manager Niagara Navigation Co. at Toronto, born at Kingston, Ont., April 8, 1872.

G. H. Garden, C.E., Chief Engineer Alberta Ry. and Coal Co. at Lethbridge, Alta., born at Woodstock, N.B., April 5, 1849.

J. P. Gay, Division Freight Agent, G.T.R. at Stratford, Ont., born at Hamilton, Ont., April 26, 1857.

E. A. Geiger, Superintendent, General Freight Agent and Treasurer Brockville, Westport and Sault Ste. Marie Ry. at Brockville, Ont., born at Newark, N.J., April 10, 1863.

B. C. Gesner, Air Brake Inspector, I.C.R. at Moncton, N.B., born at Cornwallis, N.S., April 23, 1859.

A. L. Hertzberg, Division Engineer C.P.R. at Toronto, born in Norway, April 30, 1855.

E. A. James, General Superintendent, Canadian Northern Ry. at Winnipeg, Man., born in London, Eng., April, 1865.

B. S. Jenkins, General Superintendent Telegraphs, C.P.R. at Winnipeg, Man., born April 8, 1859.

Thos. Long, Secretary, Northern Navigation Co. of Ontario, Toronto, born at Lime-
rick, Ireland, April 7, 1836.

D. McNicoll, second Vice-President and General Manager C.P.R., at Montreal, born at Arbroath, Scotland, April, 1852.

E. V. Skinner, General Eastern Agent Canadian Pacific Ry. at New York, born in London, Eng., April 22, 1849.

A. M. Sutherland, Assistant Superintendent, Duluth, South Shore and Atlantic Ry. at Thomaston, Mich., born at Hartford, Conn., April 2, 1844.

J. E. Schwitzer, Resident Engineer, Western Division, C.P.R. at Winnipeg, Man., born at Ottawa, Ont., April 19, 1870.

J. R. VanCleve, Master Mechanic, White Pass and Yukon Route at Skagway, Alaska, born at Little Falls, Minn., April 6, 1859.

W. Wainwright, General Assistant and Comptroller, G.T.R. at Montreal, born at Manchester, Eng., April 30, 1840.

J. J. Wallace, General Freight Agent, I.C.R. at Moncton, N.B., born in Albert Co., N.B., April 20, 1847.

Hon. J. Wood, President and General Manager, New Brunswick and Prince Edward Island Ry. at Sackville, N.B., born at Sackville, N.B., April 18, 1843.

W. Woollatt, General Superintendent Lake Erie and Detroit River Ry. at Walkerville, Ont., born at Weedon, Hertfordshire, Eng., April 2, 1855.

The New Montreal Locomotive Works.

The site acquired by the Locomotive and Machine Co. of Montreal for its locomotive and machine shops at Longue Pointe, is situated between the Montreal Terminal Ry. and the St. Lawrence river. It covers the proposed extensions of Ontario and St. Catherine streets, and the turnpike road. There is a reservation alongside this road of 30 ft., with a view of widening it to 80 ft. The area

from the railway tracks to the turnpike road is 2,852 ft. 6 in., by 875 ft. along the tracks, making an area of about 57 acres. There will be siding connection from the railway to the various buildings that are to be erected. The total floor capacity of the buildings planned will be over 251,000 sq. ft. or over 5½ acres. The construction of the shops will be almost wholly of steel, with stone base extending 4 ft. from the ground level, the pilasters being hard brick. The sizes of the different buildings will be as follows:

Machine shop.....	420 ft.x 132 ft.	
Forge	340 ft.x 66 ft.	4 in.
Erecting shop	340 ft.x 66 ft.	
Boiler shop	380 ft.x 66 ft.	10 in.
Foundry	180 ft.x 65 ft.	5 in.
Steel casting shop	(1) 240 ft.x 40 ft.	
	(2) 200 ft.x 66 ft.	
Structural shop	200 ft.x 200 ft.	
Pattern storage	60 ft.x 66 ft.	
Carpenter's shop	100 ft.x 66 ft.	
Storehouse and office.....	280 ft.x 38 ft.	
Temporary shop	210 ft.x 80 ft.	
Boiler and engine house.....	65 ft.x 100 ft.	

The contract for the brick and stone work and for the roofing and roof glazing for the several buildings has been let and substantial progress is being made in every particular. Three-fourths of the structural material is already on hand, and the structural shop is nearing completion. M. J. Butler is Chief Engineer in charge of the work, and E. R. Rolph is the architect of the buildings. Satisfactory progress is being made by the several manufacturers of the tools, and it is expected that the works will be in running order by Aug. 1.

The Hudson's Bay Co. has been given the contract for the supply of carpets, china, glassware, etc., for the new additions to the C.P.R. hotels in the Rocky and Selkirk mountains.

When the commissioners on cattle-guards adjourned the testing of devices offered for approval in Feb., 95 different ideas had been tested, some of them having been tested three or four times. These additional tests were given to devices which had been fairly successful and in which defects brought out by the tests had been remedied. The commissioners resumed the work of testing devices at Ottawa Mar. 10, and all devices entered for test to Mar. 20 will be examined and tested prior to a report being made. The scope of the duties of the commissioners is defined in the order appointing them as being to examine into and report on the question of railway cattle guards, which was discussed by the Railway Committee of the House of Commons last session and held over at the request of the Minister of Railways pending the obtaining of further information on the subject, in order to the selection of one or more suitable to Canada. That examination be made of the guards in use on the principal lines both in Canada and the United States, and also of such inventions of this nature as may be presented.

The Engineers' Club of Montreal is applying for incorporation under the Quebec Companies' Act, with a capital of \$7,500, to establish a social, scientific and literary club in Montreal. The incorporators are: P. W. St. George, W. McL. Walbank, T. Lesage, L. J. Papineau, C. M. Strange, L. Skaife, C. de B. Leprohon, S. Howard, A. F. B. Austin, E. McG. Quirk, A. Furley, W. H. C. Musson, R. S. Lee and J. E. Hardman, of Montreal. The new club proposes to admit as members architects, contractors and builders in addition to engineers, and negotiations are in progress for suitable premises in the vicinity of Dominion square.

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Builders of Single Expansion and Compound Locomotives for All Classes of Service, from Original Designs or from Specifications Furnished by Purchasers.



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PITTSBURG LOCOMOTIVE WORKS, Allegheny, Pa.

RICHMOND LOCOMOTIVE WORKS, Richmond, Va.

COOKE LOCOMOTIVE WORKS, Paterson, N.J.

RHODE ISLAND LOCOMOTIVE WORKS, Providence, R.I.

DICKSON LOCOMOTIVE WORKS, Scranton, Pa.

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GENERAL OFFICES

25 Broad Street, NEW YORK CITY.

STEAM RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1902.

In this table the minus mark (-) before figures in the net earnings column shows that there was a deficit in the operations of the line to the extent of the figures given. The numbers in brackets—thus (1)—after the name of a railway refer to notes at the foot of the table on page 115.

Name of Railway.	Mileage.	Gross earnings.	Net earnings.	Proportion of earnings to working expenses.	Earnings per train mile.	Operating per train mile.	Train mileage.	Engine mileage.	Passengers carried.	Tons of freight carried.
		\$ cts.	\$ cts.	p.c.	Cents.	Cents.				
Alberta Ry. & Coal Co.	64.62	140,035 72	38,551 26	138	284.68	206.30	49,191	50,986	6,774	60,077
Albert Southern (1).....	19.00									
Algoma Central & Hudson's Bay	70.50	469,981 90	212,661 20	183	567.86	310.90	82,764	231,777	36,209	1,004,469
Atlantic and Lake Superior (2)...	130.00	43,405 07	-1,365 04	97	66.78	68.88	65,000	65,000	13,865	18,520
Bay of Quinte (3).....	64.82	219,940 67	107,789 75	196	161.72	82.46	136,003	136,003	82,736	353,599
Bedlington and Nelson (4)	15.20	32,510 26	13,316 60	169	461.53	272.48	7,044	7,044	1,378	154,788
British Yukon	90.32	428,924 59	222,427 33	208	527.58	253.99	81,300	81,748	14,879	26,459
Brookville, Westport & Sault Ste. Marie.....	45.00	39,232 28	6,115 81	118	116.52	98.35	33,670	33,930	39,695	17,649
Bruce Mines & Algoma (5).....	16.62									
Buctouche & Moncton	32.00	18,336 14	-1,098 99	94	90.95	96.40	20,160	21,412	10,935	21,658
Calgary & Edmonton (6).....	295.93	547,826 17	274,781 18	201	194.45	96.92	281,729	316,596	65,876	131,469
Canada Atlantic	458.60	1,816,946 47	569,021 07	146	127.12	87.31	1,429,314	1,714,572	368,571	1,545,240
Canada Coals & Ry. Co.	12.00	26,545 46	13,371 66	202	132.73	65.86	20,000	25,000	10,152	56,762
Canada Eastern.....	136.00	116,633 69	-9,115 62	93	68.70	74.07	169,772	178,500	47,198	110,800
Canada Southern (7).....	382.19	5,191,495 41	519,698 77	111	110.05	122.66	3,808,782	4,886,338	802,494	4,209,924
Canadian Northern (8).....	1,248.20	1,400,970 43	463,204 82	149	195.05	130.56	718,274	1,015,279	224,145	715,692
Canadian Government Rys.....										
Intercolonial (9).....	1,301.94	5,671,385 91	96,822 61	102	93.46	91.87	6,067,947	7,636,113	2,186,226	2,385,816
Prince Edward Island	209.00	197,999 93	-72,160 04	73	72.46	98.87	273,238	369,881	184,748	75,381
Canadian Pacific (10).....	7,321.00	36,866,875 14	14,043,674 75	162	179.80	111.31	20,504,118	27,164,928	4,771,017	8,755,538
Caracquet	68.00	32,237 77	806 45	103	56.10	54.70	57,460	57,460	5,872	21,133
Carillon & Grenville.....	15.00	1,816 17	-1,326 69	58	28.84	49.90	6,300	7,000	6,039	100
Central Ontario	134.60	183,991 70	57,721 05	146	146.90	100.81	125,250	172,276	81,486	197,848
Central of New Brunswick.....	45.66	7,332 37	-29,394 72	20	63.90	320.06	11,475	12,151	3,565	5,672
Central of Nova Scotia (11).....	74.00	61,038 32	18,025 44	142	122.58	86.38	49,793	56,153	47,386	31,089
Cumberland Ry. & Coal Co.	32.00	123,164 18	43,905 07	155	175.49	112.93	70,183	133,691	26,698	413,961
Dominion Atlantic (12).....	220.50	1,044,975 31	255,419 95	132	193.82	146.44	539,161	539,161	264,416	258,774
Elgin & Havelock	28.00	7,911 92	-2,608 31	75	53.47	71.10	14,796	14,796	3,849	9,503
Esquimalt & Nanaimo.....	78.00	243,634 30	15,153 29	107	107.10	100.43	227,492	227,492	131,520	98,838
Fredericton & St. Mary's Bridge Co. (13).....	1.33	4,796 27	2,546 97	213						
Grand Trunk (14).....	3,157.48	22,211,813 80	7,814,120 99	154	143.50	93.02	15,478,580	18,746,358	7,334,607	10,080,963
Great Northern (15).....	175.10	524,763 51	207,962 82	166	128.82	77.77	407,359	514,503	155,395	444,311
Gulf Shore	16.78	5,612 19	4,083 15	367	107.90	29.39	5,202	5,202	859	8,218
Halifax & Yarmouth (16).....	30.80	25,893 96	6,119 37	131	56.41	43.08	45,907	48,454	36,157	8,071
Hampton & St. Martin's	29.00	7,275 93	-2,562 12	74	57.75	78.08	12,600	12,600	4,637	8,843
Hereford	53.30	51,830 88	-37,771 75	58	86.38	149.32	60,006	85,950	18,325	101,048
Irondale, Bancroft & Ottawa.....	48.00	15,483 85	-1,461 31	91	51.22	56.06	30,228	31,728	7,250	13,493
Interprovincial Bridge & Approaches	1.40									
Inverness Ry. & Coal Co.	61.00	40,823 22	-1,499 99	96	74.99	98.48	42,977	51,627	26,139	24,357
Kaslo & Slocan	31.80	55,470 13	11,744 56	127	234.05	184.50	23,700	39,493	10,694	23,680
Kent Northern (18).....	34.00	12,484 22	5,484 22	178	69.36	38.89	18,000	18,250	5,898	4,008
Kingston & Pembroke.....	112.85	166,293 76	27,356 63	120	117.93	98.53	141,008	141,008	37,704	100,955
L'Assomption	3.33	1,409 28	-100 14	93	21.76	23.31	6,475	6,475	6,715	450
Lake Erie & Detroit River	222.35	615,810 74	183,813 82	143	98.69	69.24	623,951	919,354	546,058	651,247
Leonora Mount Sicker	11.50	2,999 35	-12,742 88	19	22.83	119.80	13,140	13,140	424	12,773
Liverpool & Milton.....	5.00	9,431 88	4,562 18	194	110.96	57.29	8,500	8,500	23,200	33,818
Lotbiniere & Megantic	30.34	16,943 44	1,139 46	107	92.99	86.74	18,220	21,252	9,063	27,890
Manitoulin & North Shore.....	16.00	48,676 56	28,025 71	236	394.59	167.40	12,336	36,571	5,792	482,061
Massawippi Valley (19).....	35.46	139,283 70	29,181 11	126	85.93	67.92	162,096	223,339	122,705	302,641
Midland of Nova Scotia (20).....	57.50	23,653 10	4,038 68	121	69.36	57.54	34,104	34,104	20,025	19,880
Montford & Gatinneau Colonization	33.00	20,826 78	-2,057 57	91	39.82	43.76	52,300	52,300	8,000	27,338
Montreal & Atlantic (21).....	200.30	409,443 69	7,143 26	102	112.93	110.96	362,562	463,583	181,871	733,503
Montreal and Province Line (22).....	40.60	75,964 72	1,137 48	102	106.09	104.50	71,604	71,604	92,787	79,545
Montreal & Vermont Jct. (22).....	23.60	183,744 39	36,800 52	125	102.91	82.30	178,542	178,542	113,436	965,516
New Westminster Southern (24).....	24.10	16,812 74	-17,420 90	49	55.69	113.40	30,188	30,188	12,965	7,991
Nelson & Fort Sheppard (23).....	54.70	141,158 44	25,859 85	122	232.06	189.55	60,828	60,828	21,552	52,407
New Brunswick & P.E.I.....	36.00	26,517 59	3,641 98	116	62.32	53.76	42,552	47,530	18,944	47,523
Nosbonsing & Nipissing.....	5.50	53,850 00	8,771 77	119	104.89	338.93	13,300	14,620		30,177
Nova Scotia Steel & Coal Co.'s Ry.	12.50	16,000 07	-3,176 30	83	106.67	127.84	15,000	34,000	4,963	174,601
Orford Mountain	31.00	18,868 69	715 41	104	68.39	65.80	27,588	27,588	6,888	22,903
Ottawa, Northern & Western.....	59.10	84,143 23	18,886 61	129	176.25	136.69	47,740	48,325	66,565	20,448
Ottawa & New York	56.79	86,917 90	3,978 83	105	75.86	72.39	114,582	114,582	92,738	51,362
Phillipsb'g Ry. & Quarry Co.'s Ry.	7.50	7,157 28	4,660 98	287	513.43	179.07	1,394	1,394	16	6,254
Pontiac & Renfrew (25).....	4.25									
Pontiac Pacific Jct. (26).....	77.70	69,334 83	6,340 61	110	125.20	113.75	55,380	56,487	37,137	43,572
Qu'Appelle, Long Lake & Saskatchewan	253.96	194,986 94	57,416 18	142	209.82	148.03	92,932	92,932	14,754	65,055
Quebec Central (27)	213.50	628,240 56	193,299 37	144	107.04	74.11	586,891	598,345	203,296	386,610
Quebec & Lake St. John.....	241.00	388,603 25	73,004 74	120	115.89	94.13	335,296	530,778	198,861	225,366

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturer of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

STEAM RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1902—Continued.

Name of Railway.	Mileage.	Gross earnings.	Net earnings.	Proportion of earnings to working expenses.	Earnings per train mile.	Operating per train mile.	Train mileage.	Engine mileage.	Passengers carried.	Tons of freight carried.
		\$ cts.	\$ cts.	p.c.	Cents.	Cents.				
Quebec Ry., Light & Power Co. (28)	30.00	41,229 68	10,010 75	132	90.99	68.90	45,310	50,622	214,808	18,565*
Quebec Southern	143.50	61,705 04	27,740 87	182	40.96	22.54	150,657	227,182	434,279	157,801
Red Mountain	9.53	164,085 89	77,874 62	68	72.23	106.51	227,182	228,694	125,961	237,381
Restigouche & Western (29)	10.00	82,401 85	21,027 26	134	495.14	368.80	16,642	30,872	19,384	37,319
Rutland & Noyan (30)	5.00									
Salisbury & Harvey	45.00	26,336 07	-9,735 75	73	87.17	119.39	30,212	31,821	11,342	20,462
Shore Line, N.B.	82.50	35,656 63	-13,224 64	73	62.43	85.58	57,116	57,116	15,097	15,737
South Shore (33)		19,092 31	-7,354 81	72	63.72	88.27	29,962	29,962	53,635	981,452
Stanstead, Shefford & Chambly ..	43.00	73,847 64	9,123 50	114	93.53	81.98	78,952	78,952	141,634	
St. Clair Tunnel, etc. (31)	2.23	208,595 55	107,407 29	206				89,274		
St. Lawrence & Adirondack (32) ..	32.82	203,383 67	79,788 70	165	104.07	63.24	195,427	155,517	202,545	232,328
St. Mary's River	30.00	14,442 11	4,033 89	139	117.46	84.65	12,295	12,295	2,606	8,839
Sydney & Louisburg	48.96	687,210 70	387,265 73	229	226.80	98.99	303,000	320,000	180,000	3,883,800
Temiscouata	113.00	126,027 51	17,300 49	116	132.45	113.82	95,528	90,783	31,308	96,300
Tillsonburg, Lake Erie & Pacific ..	20.00	13,769 17	2,653 17	124	34.40	27.79	40,000	40,000	19,000	12,848
Thousand Islands	6.33	32,076 46	10,557 95	149	82.06	55.05	39,088	39,088	34,249	23,818
Toronto, Hamilton & Buffalo (34) ..	87.39	511,572 57	204,322 66	167	171.33	102.90	298,591	457,132	281,474	653,402
Victoria & Sydney	17.40	24,062 51	1,466 85	106	92.87	87.21	25,910	25,910	26,703	23,255
York & Carleton	5.75	2,539 80	-31 20	99	362.83	367.29	700	700	1,800	3,583
	18,867.83	83,666,503 31	26,322,911 04				55,729,856	70,275,615	20,679,974	42,376,527

* Steam. † Electric.

(1) The Albert Southern was not in operation during the year.

(2) The Atlantic and Lake Superior mileage is:—Baie des Chaleurs, 100; Great Eastern, 23 and Ottawa Valley, 7; of which 98 miles on the Baie des Chaleurs is under traffic.

(3) The Bay of Quinte mileage includes the Kingston, Napanee and Western, 60.82.

(4) The Bedlington & Nelson has running powers over the C.P.R., from Creston Junction to Sirdar Junction, 8.7 miles.

(5) The Bruce Mines and Algoma was not in operation during the year.

(6) The Calgary & Edmonton is operated by the C.P.R.

(7) The Canada Southern has 132.38 miles of double track.

(8) The Canadian Northern includes the Lake Manitoba and Canal Co.'s line, Winnipeg Great Northern Railway, Manitoba South Eastern Railway, Ontario and Rainy River Railway, and Port Arthur, Duluth and Western Railway, 892.62 miles; and it also operates the Northern Pacific and Manitoba lines, 320.51 miles, and the Portage and North Western, 35.07 miles.

(9) The Intercolonial mileage is exclusive of the Windsor branch, 32 miles, but includes the Drummond County. The I.C.R. has running powers on the G.T.R., Point Levis to Hadlow, 1.50 miles; Chaudière Curve to Chaudière, 1.18 miles, and St. Rosalie Junction to Montreal, 37.62 miles. Total, 40.30 miles.

(10) The C.P.R. mileage comprises C.P.R. lines owned, 4,582.50; leased lines, Fredericton, 22.10; New Brunswick, 175; New Brunswick & Canada, 117.20; St. John & Maine, 92.10; St. John Bridge & Ry. Extension, 2; St. Stephen & Milltown, 4.60; Tobique Valley, 28; Cap de la Madeleine, 3.00; Montreal & Lake Maskinonge, 12.90; Atlantic & Northwest, 201.40; Montreal & Ottawa, 93.20; Ontario & Quebec, 473.00; St. Lawrence & Ottawa, 58.40; Credit Valley, 175.70; Guelph Junction, 15.00; Toronto, Hamilton & Buffalo, 2.70; Toronto, Grey & Bruce, 191.10; West Ontario Pacific, 26.60; Manitoba & Northwestern, including Saskatchewan & Western, 252.40; Manitoba Southwestern Colonization, 214.40; Columbia & Kootenay,

60.50; Nakusp and Slocan, 36.30; Shuswap & Okanagan, 50.80; Columbia & Western, 157.10; Great Northwest Central, 71; B. C. Southern, 202.40. The C.P.R. has 35.69 miles double track. The C.P.R. has running powers as follows:—Grand Trunk, Toronto to Hamilton Junction, 35.20 miles; Toronto, Hamilton & Buffalo, Hamilton Junction to Hamilton, 2.70 miles; Canada Atlantic, Montreal & Ottawa Junction to Ottawa, .80 miles.

(11) The Central of Nova Scotia has running powers on the Dominion Atlantic Railway, from Middleton Junction to Middleton, .33 miles.

(12) The Dominion Atlantic Railway has running powers over the Intercolonial Railway, Halifax to Windsor Junction. Its mileage includes the I.C.R. Windsor branch, 32 miles.

(13) The Fredericton and St. Mary's Bridge Co. has running powers on the Canada Eastern Railway, .17 miles. The earnings are toll on trains run across the bridge by the Canada Eastern Railway and C.P.R.

(14) The Grand Trunk mileage includes:—G.T.R., 883.79; Great Western, 561.80; Brantford, Norfolk and Port Burwell, 34.39; Buffalo & Lake Huron, 162; G.T., Georgian Bay and Lake Erie, 171; Owen Sound branch, 12.42; London, Huron & Bruce, 68; Waterloo Junction, 10.25; South Norfolk, 17; Wellington, Grey & Bruce, 168.13; Northern 172.10; North Simcoe, 33; Hamilton and Northwestern, 172; Northern Pacific Junction 111.37; Toronto Belt, 12.79; Midland, 166; Grand Junction, 85.21; Toronto & Nipissing, 85; Lake Simcoe Junction, 26; Victoria, 53; Whitby, Port Perry & Lindsay, 46; Cobourg, Blairton & Marmora, not operated, 15; Jacques Cartier Union, 6.50; Montreal and Champlain Junction, 61.73; Beauharnois Junction, 19.50. The G.T.R. has running powers over the Chaudière branch I.C.R., 5.77 miles. Its mileage also includes 468 miles of double track.

(15) The Great Northern Railway has running powers over the Quebec and Lake St. John Railway, from Quebec to Rivière à Pierre, 56.50 miles. The mileage includes the Lower Laurentian, 35 miles.

(16) The Halifax & Yarmouth Railway has also 19.30 miles not in operation.

(18) The Kent Northern mileage includes the St. Louis and Richibucto Railway, 7.00 miles, which was not operated during the year.

(19) The Massawippi Valley is leased to the Boston & Maine. It has running powers on the G.T.R., from Lennoxville to Sherbrooke, 2.95 miles.

(20) The Midland of Nova Scotia was in operation for 8 months only to June 30, 1902. It has running powers on the Intercolonial Railway, from the Midland Junction to Truro Station, .50 miles.

(21) The Montreal & Atlantic is operated by the C.P.R. Its mileage comprises the old Southeastern, 103 miles, and the Lake Champlain and St. Lawrence Junction, 60.70 miles. The M. & A. has 36.6 miles from Sorel to Drummondville not in operation.

(22) The Montreal & Province and the Montreal & Vermont Junction are leased by the Central Vermont.

(23) The Nelson & Fort Sheppard is operated by the Spokane & Northern, a subsidiary of the Great Northern, U.S.A. It has running powers on the C.P.R., from Five Mile Point to Nelson, B.C., 4.7 miles.

(24) The New Westminster Southern is owned and operated by the Great Northern, U.S.A.

(25) The Pontiac & Renfrew is not operated.

(26) The Pontiac Pacific Junction has also running powers over the Hull Electric Railway, 2.5 miles.

(27) The Quebec Central has running powers on the Intercolonial Harlaka Junction to Lewis, 5.00 miles.

(28) The Quebec Railway Light and Power Co. is operated both by electricity and steam. The figures in the first line are those for the electric operation, and those in the second line for the steam operation. It has also six miles of double track.

(29) The Restigouche & Western Railway is not in operation.

(30) The Rutland & Noyan is being operated by the Rutland Railroad under an agreement.

(31) The St. Clair Tunnel earnings are from rents and tolls on vehicles hauled through the tunnel.

(32) The St. Lawrence & Adirondack has running powers on the G.T.R., from Valleyfield to Beauharnois, 13.30 miles, and on the C.P.R., from Adirondack Junction to Montreal, 8.70 miles.

(33) The South Shore earnings are up to Oct. 17, 1901, at which date the line was acquired by the Quebec Southern Railway. The earnings from that date are included in those of the Quebec Southern Railway.

(34) The Toronto, Hamilton & Buffalo has 4.69 miles of double track. It has also running powers over the Hamilton & Dundas Electric Railway, from Hamilton to Dundas, 3.67 miles.

The Bell Telephone Co. of Canada.

The report for the year ended Dec. 31, 1902, presented at the annual meeting in Montreal on Feb. 26, stated that 5,623 subscribers have been added during the year; the total number of sets of instruments earning rental being 48,481. The Company owns and operates 377 exchanges and 553 agencies. 2,655 miles of wire were added to the long distance system, 1,042 in the Ontario department, 1,240 in the Eastern department, and 373 in the Northwestern department. The long distance lines owned and operated by the Company comprised 26,848 miles of wire on 6,991 miles of poles. \$250,000 of 5% bonds were sold during the year at a premium of \$22,809.24. 10,000 shares of new stock were offered to shareholders at 25% premium, and 9,884 were applied for, on which two instalments of \$25 each were paid during the year, amounting to \$395,360 on account of stock and \$98,840 on account of the premium; this premium together with the premium on the bonds, \$22,809.24 (\$121,649.24), in accordance with the

custom in the past, has been carried to the contingent account. From the balance of revenue account, \$114,244.12, \$32,674.10 has been carried to insurance reserve account; \$18,133.75 to accident insurance reserve account, and \$40,000 to contingent account; leaving balance of revenue to be carried to 1903, \$23,436.27.

REVENUE ACCOUNT.

RECEIPTS.	
Exchanges (less unearned rentals)	\$1,413,219 10
Long distance lines	534,581 70
Private lines	11,837 58
Miscellaneous	125,495 88
	\$2,085,134 26

EXPENSES.	
Operating	\$1,436,888 20
Legal	20,411 80
Insurance	17,030 14
Bond interest	97,098 74
Miscellaneous	8,512 51
	1,580,851 39

Net revenue for 1902	504,282 87
Less dividends (Inc. Jan. 15, 1903)	411,860 40

Balance revenue from 1901	\$ 92,422 47
	21,821 65
	\$114,244 12

Carried to insurance reserve account	\$ 32,674 10
Carried to accident reserve account	18,133 75
Carried to contingent fund	40,000 00
	90,807 85

Carried forward to 1903	\$ 23,436 27
-------------------------------	--------------

BALANCE SHEET.

Stock account	\$5,395,360 00
Bond account	2,000,000 00
Contingent account, 1901	953,861 00
Add premium on stocks sold	98,840 00
" premium on bonds sold	22,809 24
" from revenue account	40,000 00
	1,115,010 24
Revenue account	23,436 27
Unearned rental reserve	202,885 78
Insurance reserve	150,000 00
Accident reserve	50,000 00

Bond interest reserve	25,000 00
Sundry creditors	189,029 50
	\$9,240,721 79

Plant and patent account, 31 Dec. 1901	\$6,460,693 00
Plant and patent account, added in 1902	492,007 02

Plant and patent account, Dec. 31, 1902	\$6,952,700 02
Stores on hand	275,466 37
Real estate	832,240 44
Stock in other companies	817,256 50
Due from agencies	97,444 98
Debtors and cash	265,613 48
	\$9,240,721 79

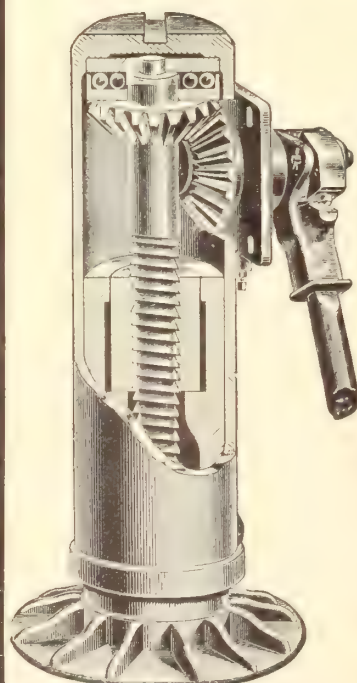
The directors and officers were all re-elected.

From Liverpool comes a story of an entertaining piece of repartee on the part of a poor woman at a small wayside station. She was accompanied by a hobbledoy son for whom she gave up a half-fare ticket. "This boy of yours," said the collector, "is far too big for a half-ticket." "Well, maybe he is," was the reply, "but he wasn't when he left Liverpool. He's a growing lad, and yours is a slow line." And they passed without hindrance into the street.

The Canadian Northern Ry. has a novel law suit on its hands in Minnesota. Requiring gravel for ballasting its line, the Co. opened a pit on some land near Beaudette, Minn., owned by the U.S. Government, and removed therefrom some 100,000 cubic feet of gravel. While the gravel was being moved H. Sanborn took out homestead papers for the land in question, and now brings suit to recover \$17,000 for the gravel removed.

Lignite briquettes are being tested as a fuel on a locomotive of the Minneapolis, St. Paul and Sault Ste. Marie Ry. at Minneapolis. The engine ran 20 miles on a ton of the fuel, which is better than the mileage made per ton of soft coal.

Why The Norton Ball-Bearing Jack Is Better Than Any Other.



Sectional View of Norton Jack.

THE BALL-BEARINGS

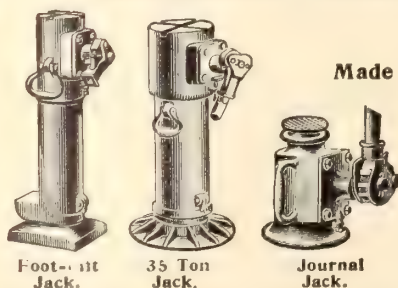
reduce the friction and increase the power of the Jack.

THE GEARS

are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

THE SCREW

runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.



Made in 50 styles—8 to 70 tons capacity.

Manufactured by

A. O. NORTON,
COATICOOK, PROV. QUEBEC.

Stock carried by

W. H. C. MUSSEN & CO., Montreal.

ELECTRIC RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1902.

The following abbreviations are used in the names of railways,—E., electric; E. R., electric railway; E. S. R., electric street railway; R., railway; S. R., street railway:

Name of Railway.	Mileage.	Gross earnings.	Net earnings.	Proportion of earnings to working expenses.	Earnings per train mile.	Operating per train mile.	Car Mileage.	Passengers carried.	Freight carried.
		\$ cts.	\$ cts.	p.c.	Cents.	Cents.			
Berlin & Waterloo S. R.	3.02	15,613 15	2,683 83	121	21.15	17.51	73,820	352,500	
Brantford S. R.	5.90	20,934 35	10,693 53	66	10.47	15.81	200,000	287,414	
British Columbia E. R. (1)	42.25	413,923 02	124,241 80	143	20.75	14.52	1,994,627	7,670,468	6,109
Cornwall E. R.	6.00	17,494 08	2,086 36	86	10.41	12.08	168,102	260,259	
Galt, Preston & Hespeler S. R.	9.00	26,227 57	5,547 39	127	31.11	24.53	84,300	277,236	24,935
Guelph S. R.	5.50	15,324 63	2,136 77	116	7.83	6.74	195,800	345,847	
Halifax E. Tramway	10.42	137,716 95	40,350 95	141	23.52	16.63	585,500	2,540,000	
Hamilton & Dundas S. R.	7.25	31,186 66	16,510 43	213	43.32	20.39	71,972	282,324	1,080
Hamilton, Grimsby & Beamsville E. R.	23.00	48,732 09	24,089 09	198	21.25	10.75	229,298	338,696	6,621
Hamilton Radial E. R.	12.00	42,191 69	18,508 76	178	14.17	7.96	297,677	525,315	1,900
Hamilton S. R.	22.00	162,570 59	67,649 78	171	12.64	7.38	1,286,686	3,845,789	
Hull E. Co. (2)	13.63	74,763 26	25,068 60	150	17.70	11.76	422,564	632,256	53,620
Kingston, Portsmouth & Cataraqui E. R.	7.40	38,347 58	13,780 72	156	39.94	25.59	96,011	591,150	
London S. R.	18.32	141,845 59	57,288 64	168	11.01	6.56	1,288,684	3,744,469	
Metropolitan (Toronto) R.	28.00	68,814 92	38,418 67	226	27.53	12.16	250,000	464,104	800
Montreal Park & Island R.	24.05	128,836 21	13,093 40	111	18.40	16.53	700,155	1,384,520	11,165
Montreal S. R.	64.64	1,990,834 56	880,143 99	179	18.74	10.45	10,624,453	48,858,373	
Montreal Terminal R. (3)	14.10	44,060 42	19,947 90	183	19.14	10.47	230,183	379,575	21,774
Nelson E. Tramway (5)	3.00	6,303 75	16,026 22	28	12.12	42.94	52,050	107,415	
Niagara Falls Park & River R.	13.68	258,092 24	190,030 05	379	59.62	15.72	432,935	1,650,464	5,400
Niagara, St. Catharines & Toronto R. (4)	17.79	91,429 37	22,496 01	133	42.29	31.88	216,220	553,184	79,337
Niagara Falls, Wesley Park & Clifton E. R.	4.50	15,428 61	5,751 29	159	13.00	8.15	118,681	333,536	
Ottawa E. R.	23.85	299,669 84	114,101 93	161	14.12	8.74	2,122,087	6,988,370	
Oshawa R.	8.02	36,742 07	11,314 88	145	63.09	43.66	58,241	119,706	53,441
Peterborough & Ashburnham E. R. (6)									
Port Arthur E. R.	7.60	16,312 19	3,149 91	124	21.08	17.09	77,000	343,528	
Port Dalhousie, St. Catharines & Thorold E. S. R.	6.82	16,019 62	4,625 24	141	5.62	4.00	284,700	246,024	
Quebec R., Light & Power Co. (Citadel Division)	17.22	179,110 98	52,098 50	141	16.10	11.42	1,112,361	4,192,799	
Sandwich, Windsor & Amherstburg R. (7)	15.00	37,844 07	14,799 65	164	15.05	7.95	290,000	914,781	
Sherbrooke S. R. (8)	7.00	26,500 00	10,375 00	165				60,000	
St. John (N. B.) R.	12.00	81,068 08	23,068 08	140	18.19	13.02	445,584	1,771,522	
Sarnia S. R.	4.50	20,392 98	3,960 62	124	24.68	19.89	82,632	357,520	
St. Thomas S. R. (8)	5.84	9,678 97	3,846 68	72				232,381	
Toronto Suburban S. R.	8.50	14,732 92	1,285 32	92	11.21	12.19	131,400	386,442	
Toronto & Mimico R.	5.87	23,268 72	9,681 79	171	14.05	8.21	165,560	428,042	
Toronto R.	49.35	1,733,943 60	833,432 35	192	17.19	8.93	10,084,904	41,689,258	
Toronto & Scarboro E. R.	5.07	14,167 65	4,151 68	141	8.94	6.32	158,556	363,031	
Winnipeg E. S. R.	13.00	159,305 13	60,034 23	160	15.43	9.62	1,032,119	3,845,668	
Woodstock, Thames Valley & Ingersoll S. R.	10.50	17,174 90	7,929 79	186	18.31	9.86	93,779	140,034	
Yarmouth S. R.	2.00	9,835 35	2,220 60	82	13.10	16.05	75,120	177,402	
	557.59	\$6,486,583 01	\$2,683,583 01				35,833,841	137,681,402	266,182

(1) British Columbia Electric Railway. The figures given are for 15 months, from April 1, 1901, to June 30, 1902.

(2) Hull Electric Co. Locomotive mileage over the track was 17,008 miles.

(3) Montreal Terminal Railway. Locomotive mileage over track was 12,157.

(4) Niagara, St. Catharines & Toronto Railway. Locomotive mileage 22,000.

(5) Nelson Electric Tramway has also .35 miles of track not in operation.

(6) Peterborough and Ashburnham Electric Railway not in operation.

(7) Sandwich, Windsor and Amherstburg Railway. The figures given are for eight months only, from Nov. 1, 1901, to June 30, 1902.

(8) Sherbrooke Street Railway and St. Thomas Street Railway did not give any mileage statistics.

The G.T.R. has contributed \$500 to the proposed nurses' home in connection with the London, Ont., hospital, in recognition of the services of the staff to the injured in the Wanstead collision.

Grain Elevator Notes.

The Western Elevator Co. (Ltd.) has been authorized to increase its capital from \$100,000 to \$300,000.

The Lake of the Woods Milling Co. proposes building elevators at Fanning and Hopper, Man., and at Newdale, Assa., this year.

The Dowd Milling Co. will build a 20,000 bush. elevator at Fardley, Que., and a 50,000 bush. elevator in Southern Manitoba, this year.

The Hartney Farmers' Elevator has been incorporated under the Manitoba Companies' Act, with a capital of \$20,000, to build an elevator at Hartney, Man.

The Souris Farmers' Elevator has been incorporated under the Manitoba Companies' Act, with a capital of \$15,000, to construct an elevator at Souris, Man.

The Canadian Elevator Co. will erect a number of additional elevators in Manitoba and the Northwest Territories. Press reports state that from 50 to 75 will be built.

The C.P.R. is having constructed a 500,000 bush. annex, composed of concrete-steel tanks, to the present elevator at Port Arthur, Ont., operated by J. G. King.

The Underhill Farmers' Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$20,000, to build an elevator at Underhill, Man.

The Lauder Farmers' Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$20,000, to construct an elevator at Lauder, Man.

The Crown Grain Co. (Ltd.) has been incorporated under the Dominion Companies' Act to erect elevators, mills, and to carry on a general grain buying business. The provisional directors are: F. H. Phippen, Winnipeg, Man.; J. A. Pease, Minneapolis, Minn.; S. P. Buchanan and J. Geddes, Chicago, Ill.

The Export Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$500,000, to construct elevators at different points in Manitoba, the head office being in Winnipeg. The provisional directors are: F. M. March, of Winnipeg; G.

Toronto by mileage 1900-1902 was 19.10 miles

K. March, of Pierre, S.D.; C. H. March, N. D. March, of Litchfield, Minn.; H. H. Wells, of Morris, Minn.

Application will be made at the current session of the Ontario Legislature by the Fort William town council, for an act confirming the by-law approving the agreement with the Ogilvie Flour Mills Co. respecting the erection by that Co. of an elevator and a flour mill at Fort William. The plans and specifications for the elevator are being prepared by John S. Metcalfe Co., Chicago, Ill.

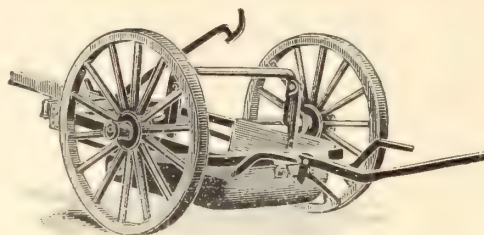
The Point Edward Elevator Co. has been incorporated under the Ontario Companies' Act, with a capital of \$200,000, to construct an elevator at Point Edward, Ont. The officers are: President, T. Long, of Toronto; Vice-President, D. Milne, of Sarnia; Secretary-Treasurer, T. H. Cook, Sarnia; other directors: J. J. Long, of Collingwood, Ont.; H. F. Mooers, of Kingston, Ont.; D. S. Lasier, J. K. Hooper, of Chicago, Ill. Press reports state that the elevator will be built of wood, will have at first a capacity of 500,000 bush., with machinery for 1,000,000 bush. capacity, and that it will be completed by July 15. This elevator will replace the G.T.R. elevator destroyed by fire in 1901. The G.T.R. is not directly interested in the present project, but is giving the company its moral support.

Muskoka Navigation Companies.

At the adjourned meeting of the shareholders of the Muskoka and Georgian Bay Navigation Co., a resolution was passed accepting the terms upon which it was proposed to amalgamate with the Muskoka Navigation Co., under a new title. The terms of the amalgamation are that shareholders of the Muskoka and Georgian Bay Navigation Co. are to receive \$145 per \$100 for their shares, while those of the Muskoka Navigation were to receive par for theirs, payment being made in shares of the new company. As a result of the resolution the Ontario Government has approved of the amalgamation, and under date of March 3 a charter was granted, under the Ontario Companies' Act, for the Muskoka Lakes Navigation and Hotel Co. (Ltd.) The capital is fixed at \$250,000 in \$1 shares, and the head office is to be in Toronto. The provisional directors are: S. Barker, M.P.; Lieut.-Col. McLaren, R. A. Lucas, of Hamilton; A. P. Cockburn, H. C. McLean, F. J. Phillips, of Toronto; G. Homer, of Gravenhurst, and N. S. Wilson, of Dundas. S. Barker was President; Lieut.-Col. McLaren, Vice-President; A. P. Cockburn, Manager and Treasurer, and H. C. McLean, Secretary, of the two companies which have been amalgamated. A meeting of directors of the new company was held March 17, but owing to several being absent the permanent organization was deferred. S. Barker was elected President, pro tem., and A. P. Cockburn was elected Secretary, pro tem. Capt. C. H. Nicholson, of Rochester, N.Y., has been appointed Manager of Transportation.

In the article in our last issue giving particulars relating to the testing of color-sense, sight and hearing of C.P.R. employes, the words "Chief Engineer" appear by error in two places in the paragraph on color-sense as being the officer who will make the tests. They will be made by the Chief Examiner, R. J. E. Scott, who is also Chief Inspector of Time Service.

The New Brunswick Coal and Ry. Co. has sublet a portion of its coal areas near Newcastle, N.B., to the Aluminum Production Co. of New Brunswick, which proposes to erect a factory for the production of aluminum from the Queen's county clays.



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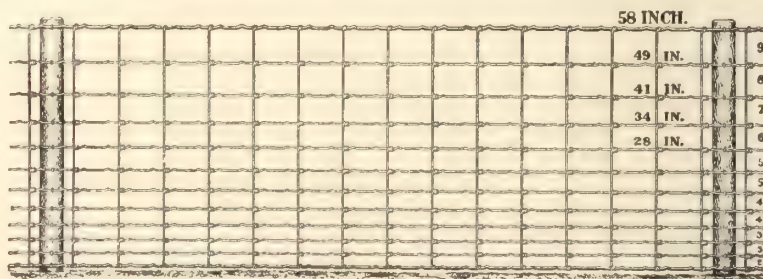
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RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Bruce Mines and Algoma Ry.—Application will be made at the current session of the Dominion Parliament for authority to construct a railway from Bruce Mines to a point on James Bay, with power to construct branches 18 miles in length east and west from Rock Lake. The Co. has constructed under an Ontario Act a railway from Lake Huron via Bruce Mines village to Rock Lake, 17 miles. (Jan., pg. 19.)

Colonial Portland Cement Co.—Application will be made at the current session of the Ontario Legislature for an act to enable the Colonial Portland Cement Co. to construct a tramway from its factory in Keppel township, Grey county, along and over highways to its marl pit.

Detroit River Bridge.—The capital of the Pere Marquette International Bridge Co. is \$500,000. F. W. Stevens, General Counsel of the Pere Marquette Rd., is reported to have said in an interview that the company has been planning for a long time to connect with a bridge its tracks on the U.S. side with those on the Canadian side, and this is a step in that direction. It is hoped to put the bridge down opposite Grosse Isle, near where the Michigan Central Rd. has bridged the U.S. channel. W. Livingstone, President of the Lake Carriers' Association, is quoted by the Marine Review as having stated that such a bridge would be a benefit to Detroit; about 125 to 135 ft. would be a sufficient height for a bridge; the location of a bridge is one that the railways must thresh out among themselves. The Review adds: "Undoubtedly the lack of adequate railway facilities at Detroit is a serious handicap both to the railways and to the city. This is shown by the falling off in the number of passengers and the volume of freight handled during the winter time. Both producer and consumer are equally interested in this question. When it is remembered that about 14 miles of railway trains are ferried across the river every day in the year the total loss of time becomes staggering. In winter, when ice fills the ferry slips, a general embargo in traffic occurs. The blockade of last January was felt from Chicago to Niagara Falls, and it was weeks before the railways had the congested freight moving again. There is not likely to be serious opposition to the bridge project by the vessel interests so long as the paramount right of navigation is safeguarded. Of course navigation has the right of way, but if both can be handled without one inconveniencing the other, there is no reason why the bridge should not be built. Mr. Livingstone is right in saying that the main cause of delay of late rests with the railways." (Mar., pg. 95.)

Grand Trunk Pacific Ry.—It is proposed in addition to the powers asked for, and referred to in the notices already published, to apply at the current session of the Dominion Parliament for authority to construct a railway from Gravenhurst or North Bay, Ont., to Quebec. (Mar., pg. 89.)

A press report states that the following will be the provisional directors of the Co.: Hon. G. A. Cox, E. R. Wood, Lieut.-Col. H. M. Pellatt, of Toronto; Hon. W. Gibson, Beamsville, Ont.; J. R. Booth, Ottawa; C. M. Hays, F. M. Morse, W. Wainwright, of the G.T.R., Montreal. It is stated that these names appear on the petition for the act of incorporation, and that other names may be used in addition to, or substitution for those mentioned. The Assistant to the 2nd Vice-President and General Manager of the G.T.R. is reported to have said, March 17, that the officials were not in a position to give out the

names of the proposed directors; the name of Hon. Mr. Rainville had inadvertently come out at Quebec, and he would probably be on the board.

Hamilton to Collingwood.—Application will be made at the current session of the Dominion Parliament for an Act incorporating a company to construct a railway to be operated by steam, electricity or other motive power from Hamilton to Collingwood, Ont. Clarke, Cowan, Bartlet and Bartlet, Windsor, Ont., are the solicitors.

Huntsville and Lake of Bays Ry.—It has been decided by the Huntsville, Lake of Bays and Lake Simcoe Navigation Co., which owns the charter, to proceed with the construction of the one mile of line at the portage of the Lake of Bays at once. It is expected that it will be in operation by July 1. (Jan., pg. 23.)

Imperial Coal Co.—C. G. Polleys, C. W. Robinson, R. F. Kinnear, of Moncton, N.B.; I. Purdy, H. VonHagen, of New York city, are seeking incorporation under the New Brunswick Companies' Act to operate coal mines, and to construct a railway in connection therewith. (Feb., pg. 39.)

Interprovincial and James Bay Ry.—Application will be made at the current session of the Dominion Parliament for an extension of the time limited for the commencement and completion of the authorized line from Lumsden's Mills on the Kippawa branch of the C.P.R., to Des Quinze river.

Kootenay Central Ry.—We were officially informed March 17 that T. T. McVittie, C.E., and J. T. Laidlaw, M.E., were running preliminary lines north and south from Fort Steele, B.C. The route as mapped out is from Elko, at the junction of the Great Northern Ry., U.S., and the C.P.R., or from Jaffray on the C.P.R., northerly to Golden on the C.P.R. transcontinental line. The route traversed is through the valleys of the Kootenay and Columbia rivers, and will open up considerable farming lands, tapping the mineral sections tributary to these rivers. It is expected that construction will be commenced in July and Aug. (Mar., pg. 95.)

Leeds and Eastern Townships Ry.—Application will be made at the current session of the Quebec Legislature for the renewal of the charter of this company, and enabling it to use electricity as a motive power.

The Leeds County Ry. (Electric) will apply at the current session of the Quebec Legislature for authority to extend its lines on the north shore of the St. Lawrence. (Feb., pg. 42.)

The Lindsay, Bobcaygeon and Pontypool Ry. will apply to the Dominion Parliament at the current session for an act extending the time for the commencement and completion of its authorized railway in Ontario. (Nov., 1902, pg. 383.)

London Belt Line.—The erection of new factories in the southern section of London, Ont., and the consequent desire of the railway companies to construct lines along Trafalgar st., to connect their lines with the new works, has revived the talk about the belt line. The city council is being urged to refuse to grant privileges for lines over its streets unless the railway companies arrange for interswitching of freight, or arrange for the construction of a belt line connecting all lines. (Nov., 1902, pg. 383.)

Lotbiniere and Megantic Ry.—The directors have decided to extend the line from Lyster to Thetford and Black Lake, Que., about 40 miles, but surveys have not been made. (Feb., pg. 43.)

Magdalen Islands Co.—W. F. V. Atkinson, G. E. A. Jones, C. W. A. Walcot, of Quebec; K. W. Racey, of Johnsonville, Que.; and W. G. Tait, of Pictou, N.S., are applying for incorporation under the Quebec Co.'s act, with

the above title, for the purpose, among other things, of constructing tramways and railways. The Magdalen islands are situated in the Gulf of St. Lawrence and have been acquired by the syndicate mentioned to develop the iron ore mines there.

Manitoba Central Ry.—J. H. Urie, W. J. C. Tomlin, W. G. Montgomery, of Deloraine; and A. S. Barton, Boissevain, are applying at the current session of the Manitoba Legislature for the incorporation of a company with this title to construct a railway from the International boundary in range 25 west via Deloraine, Elgin, Brandon and Neepawa, to the northern boundary of the province. (Mar., pg. 95.)

The Manitoba Cement Co. is applying at the current session of the Manitoba Legislature for power to construct its railway to a point in range 6 so as to enable it to reach the marl deposits acquired by it. (Feb., pg. 43.)

Manitoulin and North Shore Ry.—Application will be made at the current session of the Dominion Parliament for an extension of time for the commencement and completion of the lines authorized, and for power to construct certain branch lines.

Application will be made at the current session of the Ontario Legislature for power to construct a line from Midland to Penetanguishene, thence to Perkinsfield on the G.T.R.

The surveying staffs are reported to have been paid off and no additional field work has been arranged. It is said the line will be completed during the year to the north shore of Lake Huron, thus completing a line from Sudbury to navigable water. This will enable the Co. to ship the ores from the mines in the vicinity of Sudbury to Sault Ste. Marie, entirely over its own lines and by its own steamers. The question of extending the line across Manitoulin island is one for future consideration. (Feb., pg. 43.)

Megantic Iron, Steam and Electric Ry. Co.—Application will be made at the current session of the Quebec Legislature by the Sherbrooke Iron and Manufacturing Co. for authority to change its name to the above, and with power to construct an electric railway from Lyster station, crossing the G.T.R. via Lysander Falls, Leeds, Kinnear's Mills, Thetford, with a branch to the iron mines in Leeds tp., and other branches.

The Michigan Central Rd. during 1902 laid 18.17 miles of second track between Bismarck and Ridgetown, Ont. (Feb., pg. 43.)

The Midland Ry. Co. of Manitoba was incorporated at the current session of the Manitoba Legislature, the act being passed through its last stages Mar. 12. The Provincial Minister of Public Works stated that the men behind the company were both responsible and competent; they did not ask for any subsidies, but simply for a charter, and so long as the government was assured of their responsibility and good faith, no benefit could be gained by putting obstacles in their way. This is the company promoted by C. S. Mellen, President of the Northern Pacific Ry., and his associates. (Mar., pg. 97.)

The Montreal Bridge Co. will apply at the current session of the Dominion Parliament for an extension of time to commence and complete its bridge, and also authorizing a change in its location. The secretary is L. A. Globensky. (June, 1902, pg. 194.)

Montreal and James Bay Ry.—Application is being made at the current session of the Quebec Legislature for the incorporation of a company to construct a railway from Montreal to Rupert's Bay, with a branch from Lake Obiska or Lake Shabogama to Lake Abittibi.

Montreal-Longueuil Bridge.—Application will be made at the current session of the Dominion Parliament for the incorporation of a

company to construct a bridge with tracks for steam and electric railways, and roadways for vehicle and passenger traffic between these points. Jules Allard, Montreal, is solicitor for the applicants. (June, 1902, pg. 194.)

Montreal and North-West Ry.—L. H. Boyd, C. A. L. Fisher, W. Patterson, G. A. Marsan and J. F. Miller, of Montreal, are applying at the current session of the Quebec Legislature for the incorporation of a company with this title to construct a railway through the townships of Beresford, Howard and Montcalm in the district of Terrebonne, Que.

Middlesex and Elgin Interurban Ry. Application will be made at the current session of the Ontario Legislature for an act enabling the city of St. Thomas to enter into an agreement, binding on the St. Thomas Ry. Co., for running powers over that line, and for other purposes. T. H. Luscombe, London, Ont., is solicitor for the applicants. (Nov., 1902, pg. 383.)

Minnedosa Power Co.—F. MacG. Davies, H. M. Dyer, E. W. Pearson and H. F. Maul-

son have been incorporated at the current session of the Manitoba Legislature with this title to develop electrical power and to construct electric railways between any points within a radius of 50 miles of Minnedosa. (Feb., pg. 43.)

Nepigon Bay to Nepigon Lake.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company to construct a railway to be operated by steam or electricity, from Nepigon bay, Lake Superior, via Black Sturgeon river and Black Sturgeon lake to Lake Nepigon. Cassels, Cassels and Brock, Toronto, are solicitors for the promoters.

Nepigon Ry. Co.—The promoters of this Co. are largely interested in the Nepigon Pulp Co., of which J. R. Barber, of Georgetown, Ont., is President. The N. Ry. Co. proposes to construct 14 miles of railway from Nepigon to Point Alexander or Cameron's pool, at which point it is proposed to erect pulp mills. A survey was made in 1902 for this piece of line by R. Hazlewood, of Port Arthur. The Ontario Legislature voted a subsidy towards its construction in 1902,

and it is expected that work will be started this year. (Feb., pg. 44.)

New Brunswick.—Application will be made at the ensuing session of the N. B. Legislature for the incorporation of a company to construct a number of railway lines, to enter into arrangements for the construction of several other lines, and to amalgamate with, or to enter into traffic arrangements with a number of other railway companies. If the powers asked for are obtained and the new company is able to carry out its plans the following independent lines may be merged: Quebec and New Brunswick Ry. (Feb., pg. 45); New Brunswick Ry. and Coal Co.'s line (Feb., pg. 44); Hampton and St. Martin's Ry., and the Moncton and Buctouche Ry., while contracts for the construction of the following lines would be entered into with the respective companies: Canada Ry. and Coal Co. (Sept., 1901, pg. 271); Shediac and Coast Ry. (April, 1902, pg. 145); St. John Valley Ry. (Oct., 1899, pg. 297), St. John Valley and Riviere du Loup Ry. (Nov., 1902, pg. 386), and Woodstock and Centerville Ry. (Aug., 1902, pg. 269). The new lines for which power is to be asked are: from the junction of the line of the

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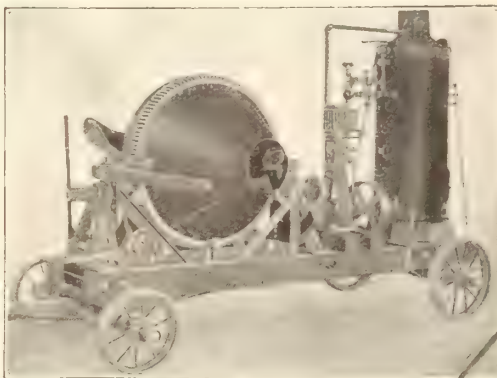
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New Brunswick Coal and Ry. Co. with the Central Ry. of N.B., at Chipman, to a junction with the Canada Eastern Ry., to a junction with the Restigouche and Western Ry. (Nov., 1902, pg. 385), thence to Edmundston, or a junction with the Quebec and New Brunswick Ry.; from the junction of the Central Ry. of N.B. with the Intercolonial Ry. at Norton to St. John, with power to acquire land in that city for terminal purposes; to extend the authorized line of the Canada Ry. and Coal Co. to a junction with the projected line of the Shediak and Coast Ry., and to extend the latter line to the boundary of New Brunswick and Nova Scotia. C. N. Skinner is solicitor for the promoters. The St. John Sun, referring to the proposed application, says: "Perhaps we ought to read in with the Quebec amendment of the Grand Trunk project the railway notices which stand in the name of C. N. Skinner in this Province.... All this may be the G.T.R.'s way of reaching this winter port." On the other hand, the Toronto News says "The move is supposed to be a part of Mackenzie, Mann & Co.'s big scheme, and an attempt to connect with their lines in Nova Scotia." Whoever is behind the project, it is on the face a direct endeavor to connect a number of small lines that are being operated with but indifferent success, and projects that have been hanging fire for a number of years and of binding them together into one system, and making a connection with the Nova Scotia lines on the one side and those of the rest of Canada, through the Province of Quebec, on the other.

The Nicola, Kamloops and Similkameen Coal and Ry. Co. will apply next session of the B.C. Legislature for an amendment to its act of incorporation authorizing the extension of its projected line from the western extremity of Nicola lake to Spence's Bridge, and from Nicola lake to Hope, thence southwesterly to Chilliwack, and extending the time within which the line may be commenced and completed.

Niagara, Queenston and St. Catharines Electric Ry.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company to construct certain lines in the Niagara district. (Feb., pg. 44.)

The Nipissing and Ottawa Ry. Co. will apply at the current session of the Dominion Parliament for an act giving power to extend its previously authorized line from the east end of Lake Nipissing to the mouth of French river, and to change its name to the Nipissing, Ottawa and French River Ry. Co. (June, 1902, pg. 195.)

Nipissing and Pontiac Ry.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company to construct a railway from New Liskeard, at the head of Lake Timiskaming, Ont., northeasterly to Lake La Quinze, Que., with power to construct branches. E. S. Senkler, North Bay, is solicitor for the promoters.

North Bay to James Bay and Missinabie.—Application will be made at the current session of the Ontario Legislature for the incorporation of a company to construct a railway from North Bay northerly to New Liskeard, thence northerly and westerly to Iroquois falls on the Abitibi river, thence to James bay, and a branch from the Mattagami river westerly and southerly to Missinabie on the C.P.R., with power to construct other branch lines. Curry and Eyre, Toronto, are solicitors for the promoters.

North Lanark Ry.—Application will be made at the current session of the Ontario Legislature for an act extending the powers of the Co. and authorizing the extension of the projected line eastward from near Arnprior to Ottawa, and westwards from Mile

lake to the Madawaska river, in Bagot or Blythfield tp. (April, 1900, pg. 115.)

Nova Scotia Eastern Ry.—Application will be made at the current session of the Nova Scotia Legislature for authority to construct lines in the county of Antigonish, as well as in Guysboro and Pictou, and to extend the time for the commencement and completion of the lines. At the opening of the N.S. Legislature reference was made in the King's speech to the fact that a contract had been signed with the Co. for the construction of the line. (Feb., pg. 45.)

The Ontario Electric Ry. is applying at the current session of the Ontario Legislature for an act authorizing it to proceed with its organization as soon as 10% of its authorized capital has been paid in. (June, 1902, pg. 195.)

The Ottawa City Council will apply at the current session of the Dominion Parliament for an act authorizing it to construct a street railway within the city, and to acquire the lines of any existing company.

Ottawa Valley Ry. Co.—Application will be made at the current session of the Dominion Parliament for an act authorizing the construction of a branch to St. Côme and to extend its proposed line to Montreal, and to a junction with the Canada Atlantic Ry. J. R. Thibaudau, of Montreal, is President.

Point Ann Ry. Co.—Application will be made at the current session of the Ontario Legislature for the incorporation of a company to construct a railway from the G.T.R., near Belleville, to Point Ann, Ont. Pinkerton and Cooke, Toronto, are solicitors for the promoters, the Belleville Portland Cement Co., which requires railway connection with its plant at Point Ann. Preliminary operations have been commenced on the grade.

Portage and South-Western Ry. Co.—H. Armstrong, A. H. Dickens, T. A. Newman, E. Anderson, of Portage la Prairie, Man., and M. Blake, of Toronto, have been incorporated at the current session of the Manitoba Legislature under the above title to construct a railway from Portage la Prairie, southwesterly to Belmont, on the Morris-Brandon branch of the Canadian Northern Ry., and from Portage la Prairie, westerly to Brandon. (Feb., pg. 45.)

The Preston and Berlin Ry. was placed in operation, Feb. 5, as a steam railway. (Feb., pg. 45.)

Prince Edward Island and New Brunswick.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company to operate a car ferry between Cape Traverse or Carleton point, P.E.I., and Cape Tormentine or Cape Jourmain, N.B., with power to acquire or enter into agreements with the New Brunswick and P.E.I. Ry., or the Shediak and Coast Ry., or other railways. P. Poirier, Shediak, N.B., is solicitor for the promoters.

Prince Edward Island Ry.—When work is re-started in the spring on the Hillsboro' river bridge, H. A. Morrow will be in charge for M. J. Haney, the contractor. During 1902 he acted as assistant to M. J. Butler, C.E., who is now chief engineer of the Locomotive and Machine Co., of Montreal. (Feb., pg. 45.)

Princeton to Kamloops.—Application will be made next session of the B.C. Legislature for the incorporation of a company to construct a railway from Princeton to Quilchena, on Nicola lake, thence to the Thompson river at Kamloops, B.C., with power to construct branches. Morrison, Whiteside, McQuarrie and Briggs, Vancouver, are solicitors for the promoters.

Quebec Bridge.—Application will be made at the current session of the Dominion Parliament for the construction of a line from the

northern terminus of the bridge into Quebec, and from the southern terminus of the bridge to near the point of intersection of the Intercolonial Ry. and the G.T.R. at Chaudière Curve; to change the name of the Co., to enable it to enter into agreements with railway companies on either side of the St. Lawrence and for other purposes in connection with the maintenance of transportation facilities in connection with the bridge. (Feb., pg. 46.)

The Quebec Central Ry. is trying to arrange for about 30 miles of 70 or 80 lb. steel rails to replace 56 lb. rails, but does not expect delivery can be secured until Aug. or Sept. (Feb., pg. 46.)

Quebec, New Brunswick and Nova Scotia Ry.—Application will be made at the current session of the Dominion Parliament for the incorporation of a company to construct a railway from Quebec to the Quebec bridge, and from the south shore of the St. Lawrence where the Quebec Bridge Co.'s lines end, to Edmundston, thence to Moncton, N.B.; thence via Pugwash to Country Harbor, N.S. Logan, Jenks & Outhitt, Amherst, N.S., are solicitors for the applicants.

The Quebec Terminal and Ry. Co. will apply at the current session of the Dominion Parliament for an extension of the time within which its railways may be commenced and completed, and for power to amalgamate with the Quebec Bridge Co. (May, 1901, pg. 157.)

Riverside Park Ry. Co. (Electric).—H. H. Beck, J. S. Gray, of Winnipeg; E. Brown, of Portage la Prairie; J. O. Smith, of Eli; C. F. Hendrickson, of Grafton, N.D., and C. Winslow, of Hatton, N.D., are applying at the current session of the Manitoba Legislature for the incorporation of a company with this title to construct a railway from Winnipeg city limits to St. Norbert, with power to arrange with any other company for an entrance into Winnipeg.

Sandwich, Windsor and Amherstburg Ry.—Application will be made at the current session of the Ontario Legislature for an act confirming an agreement entered into between the Co., the Windsor city council and the City Railway Co., of Windsor, respecting the Co.'s operations, and for other purposes. (Feb., pg. 47.)

Sarnia, Petrolia and St. Thomas Ry.—Application will be made at the current session of the Ontario Legislature for the incorporation of a company to construct an electric railway from Sarnia to Petrolia and thence to St. Thomas, and to operate ferry boats in connection therewith. F. F. Pardee, Sarnia, is solicitor for the promoters.

Sault Ste. Marie Station.—Application will be made at the current session of the Ontario Legislature for an extension of time for the provision of a station, freight shed, docks and wharves, fixed in an agreement between the Lake Superior Power Co. and the Sault Ste. Marie town council.

Southwestern Traction Co. (Electric).—Application will be made at the current session of the Ontario Legislature for an act conferring various additional powers on the Co. in connection with its projected lines. No power is to be asked to construct additional lines. (Feb., pg. 47.)

The St. Chrysostome Ry. Co. will apply at the current session of the Quebec Legislature for an act extending the time for the commencement and completion of its railway and authorizing it to arrange with other companies for operating the line. J. P. Brown, Montreal, is acting for the Co. (April, 1902, pg. 145.)

St. Thomas.—The St. Thomas city council will apply at the current session of the On-

tario Legislature for power to extend the electric railway, it has lately acquired under mortgage, to Port Stanley. (Feb., pg. 47.)

Stratford Radial Railways.—Application will be made at the current session of the Ontario Legislature for the incorporation of a company to construct electric railways from Stratford to Mitchell, from Stratford to St. Mary's, and from Stratford to Embro station, on the C.P.R., with a branch to Embro. Idington & Robertson, Stratford, are solicitors for the promoters.

Suburban Rapid Transit Co.—Application will be made at the current session of the Manitoba Legislature for an act authorizing the use of steam or other motive power, as well as electricity, and for the extension of the line into the centre of the city of Winnipeg. (Feb., pg. 47.)

Sudbury, Copper Cliff and Clayton Electric Ry.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company with this title to construct a railway to be operated by electricity, through the townships of Snyder and McKim and the towns of Copper Cliff and

Sudbury, Ont. J. A. Milligan, Sudbury, is solicitor for the applicants.

Tilsonburg, Lake Erie and Pacific Ry.—Application will be made at the current session of the Ontario Legislature by the town of Ingersoll for the confirmation of a by-law voting \$20,000 towards the extension of the Co.'s line from Tilsonburg to Ingersoll.

Toronto, Hamilton and Buffalo Ry.—Fuller particulars of the extensive improvements made last year on the bridge over the Grand River at Brantford, Ont., have been supplied us. The river was formerly crossed by a bridge of three 100 ft. through trusses carried by two pairs of cylindrical piers and two masonry abutments with a pile trestle approach at the west end 340 ft. long. One 100 ft. through plate girder span was added at the west end, and the three trusses were raised 4 ft., being supported on the cylindrical piers by steel pedestals. The easterly abutment was raised with masonry construction, and the westerly abutment torn down to its foundations and replaced by a concrete pier, which now carries one end of the new span, the other end being carried by a new

concrete abutment. The remaining 240 ft. of trestle was filled in and heavily rip-rapped on the up-stream side of the embankment. The whole work was done without accident or delay to trains, and the bridge is now well above the extremest floods. These improvements have proved beneficial to the city of Brantford in giving 100 ft. more clear waterway, allowing the ice to escape to a lower level more rapidly and thereby lessening the possibility of ice jams. (Feb., pg. 48.)

Toronto and Mimico Electric Ry. and Light Co.—Application will be made at the current session of the Ontario Legislature for authority to extend the railway from its present terminus at Long Branch to Hamilton, and also for a change of name.

An arrangement has been made with the local authorities for the erection of a new bridge across Etobicoke creek on the boundary of York and Peel counties, and it is expected that work will be commenced on the extension to Oakville this summer.

Toronto Suburban Ry. (Electric).—Application will be made at the current session of the Ontario Legislature for power to construct a

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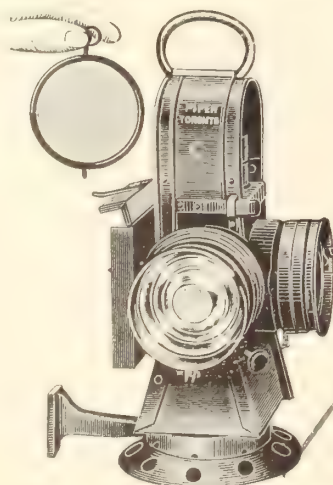
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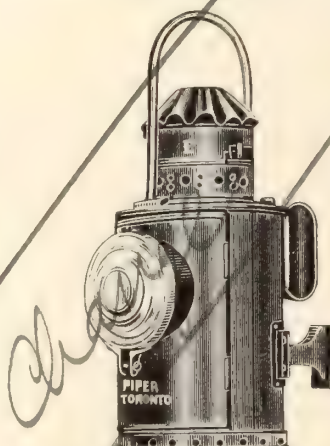
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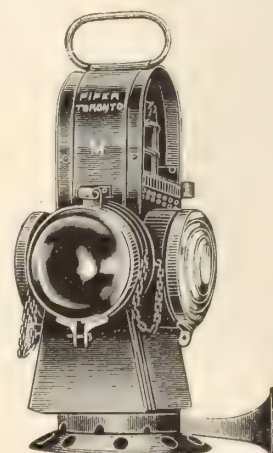
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branch from the Davenport road line to East Toronto. (Feb., pg. 49.)

The Trans-Canada Ry. Co., we are officially informed, is now busily engaged locating its proposed route from Roberval to Port Simpson, B.C. The work has been started in three places: at the eastern and western ends and also in the middle at Lake Winnipeg. It is the intention to start other parties in the spring, and the directors expect to have the whole line located in two years. The engineer in charge of location at Port Simpson is A. E. Hill, who started work at Port Simpson, and is working towards the Skeena river. C. E. Perry, C.E., has charge of the parties working east and west of the crossing of the northern end of Lake Winnipeg at Warren's island. A good crossing of the outlet of Lake Winnipeg has been secured, and the parties are now about 30 miles east and west respectively of the crossing. Mr. Perry reports that, though the weather was severe in Feb., the men were able to work every day, and that snowshoes hardly had to be used, as there was not sufficient snow on the ground. He reports level ground, well timbered and fit for agriculture. Both Messrs. Hill and Perry have had their parties outfitted by the Hudson's Bay Company, to which they are indebted for help and necessary information. V. M. Roberts is the engineer in charge at the eastern end, and is working about 60 miles west from Roberval, having started from the end of the located line, plans of which are already filed with the Dominion Government at Ottawa. He reports a good agricultural country, with easy gradients and curvature. Except frost-bites, no mishaps have occurred to any of the members of the survey parties. Good work has been done and the directors appreciate the progress which has been made during the winter.

Victoria Lumber Co.'s Ry.—Press reports state that construction has been started at a point $2\frac{1}{2}$ miles north of Ladysmith, on Vancouver Island, for a railway inland to the limits of the Victoria Lumber Co. A wharf 400 or 500 ft. in length is to be constructed for shipping the lumber. Mr. Fry, C.E., is in charge of the work.

Western Extension Ry. Co.—H. Sutherland, E. A. James, G. H. Shaw and J. H. Munson, all officials of the Canadian Northern Ry. at Winnipeg, are applying at the current session of the Manitoba Legislature for the incorporation of a company to construct the following lines: from Sperling, on the Canadian Northern Ry., southerly and easterly to Morris, thence to a point on the C.N. Ry. between St. Anne and the International boundary; from a point on the old Northern Pacific Ry. line between Winnipeg and Portage la Prairie westerly to Brandon; from near Swan river on the Canadian Northern Ry. along the valley of the Swan river westerly to the provincial boundary; and from near Greenway, on the old Northern Pacific Ry. southerly to tp. 1, range 17, west of the principal meridian.

Application will be made at the current session of the Dominion Parliament for authority to amalgamate the Western Extension Ry. with the Canadian Northern Ry. (Mar., pg. 95.)

The Winnipeg and Fort Alexander Ry. is applying at the current session of the Manitoba Legislature for an act extending the time for the commencement of the line from Winnipeg to 1906, and for its completion to 1913.

The Winnipeg General Power Co. is making progress with its project for the development of power on the Winnipeg river. The location of the plant is on the Pinawa branch of the river, about 56 miles from Winnipeg, where there is an excellent site and an adequate fall. The pole line will run directly from the power plant to Winnipeg, crossing the C.P.R. at Beausejour. This line

is now being surveyed. The Co. also proposes to construct in connection with this power plant a standard gauge tramway along the route of the pole line. (June, 1902, pg. 198.)

Winnipeg to St. Agathe.—Application will be made at the session of the Manitoba Legislature for the incorporation of a company to construct a railway from Winnipeg to St. Agathe. McPherson & Saunderson, Winnipeg, are solicitors for the promoters.

The Winnipeg and Stony Mountain Ry. is about 2 miles in length, and was constructed by the Winnipeg city council to connect its stone quarries with the C.P.R. tracks. The proposed extension would start from the C.P.R. tracks, and would reach William ave. in the city, passing through Brookside cemetery. The city would thus be able to bring all the stone required for its use over its own line, and the City Surveyor estimates that a considerable saving would be effected over the present system of having the stone brought in over the C.P.R. (Feb., pg. 49.)

Yale Northern Ry.—Application will be made next session of the B.C. Legislature for an act extending the time for completing surveys and for commencing the construction of the line, as well as for amending the list of incorporators.

Mainly About People.

C. A. Pilon, Toronto, has been appointed agent for Thos. Cook & Son's tourist agency.

Sir Wm. Van Horne sailed from New York for Cuba Mar. 7, in the interest of the Cuba Co.

J. H. Hanna, Division Freight Agent G.T.R. at Hamilton, Ont., has gone to Florida owing to ill health.

W. C. Kennedy, C.P.R. ticket agent at Charlottetown, P.E.I., died there rather suddenly Mar. 7.

Lady Van Horne and Miss A. Van Horne recently returned to Montreal after a visit to Minneapolis, Minn.

J. Muir, inventor of the paper car wheels now in use on railways, died at Morristown, N.J., Mar. 6, aged 91.

Dr. W. Seward Webb, President Rutland Rd., is in ill-health and is confined to his hotel in San Francisco, Cal.

Mrs. Hutchinson, wife of T. J. Hutchinson, foreman painter G.T.R. car shops, London, Ont., died there recently.

H. R. Charlton, G.T.R. Advertising Agent Montreal, has returned from a tour to the Western and Southern States.

Mrs. M. P. Lee, widow of the late U. C. Lee, agent of the old Canada Central Ry. at Ottawa, died there Mar. 14, aged 80.

T. Wilson, one of the C.P.R. guides in the Rocky and Selkirk mountains, B.C., is visiting Montreal after an absence of 23 years.

P. Gifkins, General Manager of the Dominion Atlantic Ry., Kentville, N.S., is in England to attend the annual meeting of the Co.

J. G. Cameron, father of K. R. Cameron, Trainmaster of the Lake Erie and Detroit River Ry., died in Toronto recently, aged 88.

The residence of P. L. Naismith, Manager of the Alberta Ry. and Coal Co., Lethbridge, Alta., was partially destroyed by fire Mar. 6.

H. R. Mallison, of the Montreal Street Ry. Co.'s service, has been appointed Comptroller of the Light, Heat and Power Co. at Mexico city.

I. G. Ogden, third Vice-President C.P.R., had sufficiently recovered, after a serious operation to one of his eyes, to return to his office Mar. 17.

A. J. Stevens, heretofore assistant engineer in the I.C.R. construction department, Mon-

ton, N.B., has entered private practice as an engineer at Toronto.

S. Matthews, who for 40 years had been connected with the G.T.R. mechanical department at Point St. Charles, Montreal, died there recently, aged 85.

The only daughter of W. Duperow, Manager of the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. at Huntsville, died in Toronto recently.

H. Bell, Travelling Freight and Passenger Agent Canadian Northern Ry. at Montreal, has been proposed for membership on the Montreal Board of Trade.

Capt. A. McBride, from 1838 to 1873 prominent in marine circles on Lake Erie at Port Stanley and Port Burwell, Ont., died at St. Thomas recently, aged 83.

S. Dunn, cashier for Mackenzie, Mann & Co. at Winnipeg, was married there recently to Miss M. M. Strevel, daughter of G. H. Strevel, railway contractor.

Mrs. Keating, wife of Wm. Keating, formerly G.T.R. ticket agent at Toronto, and now of Missoula, Montana, died in Toronto recently while on a visit there.

H. H. Gildersleeve, steamboat manager, Kingston, Ont., is a director of the British Whig Publishing Co. (Ltd.), Kingston, which has recently been incorporated.

Prof. J. G. G. Kerry, of McGill University, Montreal, delivered a very interesting address on railway location before the Engineers' Club of Toronto on Mar. 20.

J. N. Sutherland, Division Freight Agent, C.P.R., at St. John, N.B., is one of the Fenian raid veterans who has received a grant of 160 acres from the Ontario Government.

C. Carton, who has been 29 years in the G.T.R. service, the last seven as station agent at Port Dover, Ont., has resigned, and will in future reside at Bridgeport, Ala.

Press reports state that Sir Wm. Van Horne has been offered the position of Chairman of the Transportation Commission which the Dominion Government proposes to appoint.

C. Shields, 2nd Vice-President and General Manager of the Dominion Coal Co. (including the Sydney and Louisburg Ry.), has been elected President of the Mining Society of Nova Scotia.

A. McDougall, formerly G.T.R. station agent at Newtonville, Ont., has been appointed agent of the Canadian Express Co. at Bowmanville, succeeding W. A. Neads, retired after 46 years' service.

M. J. Kennedy, who recently resigned his position as Superintendent of the Montreal Street Ry., proposes establishing a restaurant in Montreal. It is reported that the directors voted him \$4,000 on his resignation.

J. Riordan was presented with a gold watch and an address by the employees of the maintenance of way department of the C.P.R. at Winnipeg, on leaving to become General Roadmaster, Canadian Northern Ry.

N. L. Newcomb, President of the Manhattan Steamship Co., New York, and well known in the Maritime Provinces in connection with the promotion of steamship companies, died suddenly in Brooklyn, N.Y., recently.

R. Binney, Roadmaster C.P.R. at Napinka, was entertained at dinner at Morden, Man., and presented with an address by the members of the Brotherhood of Railroad Trainmen, on being transferred to Winnipeg.

J. H. Manning, who has been appointed Second Assistant Superintendent of Rolling Stock, C.P.R., was formerly Master Mechanic, Union Pacific Rd. at Cheyenne, Wyo., and since 1901 has been with a business firm.

E. L. Clarke, who died in Montreal, Mar. 12, was for a number of years engaged in

surveying work for the Dominion in the Northwest, and was employed as an engineer on the construction of the C.P.R., north of Lake Superior.

E. W. McLean was recently presented by the employes of the C.P.R. advertising department at Montreal with a travelling bag, on leaving to take the position of private secretary to R. G. Reid, President of the Reid Newfoundland Co.

S. Brent has succeeded to the ticket agency heretofore carried on in Toronto by Barlow Cumberland, and has removed to 8 King St. East. He retains the agencies for the Hamburg-American and North German Lloyds Steamship Cos.

A. W. Horsey, chief draughtsman C.P.R. mechanical department, Montreal, has gone to Glasgow, Scotland, and Chemnitz, Germany, to inspect the locomotives being constructed there, prior to their being packed and shipped to Montreal.

D. W. Campbell, who has been appointed General Superintendent of the C.P.R. Atlantic steamers, has been presented with a cartoon of himself, in uniform appropriate to his

new position, by his fellow members of the Montreal Board of Trade.

J. F. Stevens, who recently resigned as General Manager and Chief Engineer of the Great Northern Ry., U.S.A., has been appointed Chief Engineer Chicago, Rock Island and Pacific Rd., and Choctaw, Oklahoma and Gulf Rd., at Chicago, Ill.

A. F. Campbell, who has been appointed Manager of the Muskoka Lakes Navigation and Hotel Co.'s Royal Muskoka Hotel, is a son of the late C. J. Campbell, of Toronto, and has been connected with the Hotel Chamberlin, Old Point Comfort, Va.

R. L. Whyte, of Hamilton, Ont., writes that he is 93 years old, that, when 14 years of age, he was in the drawing office of Robert Stephenson & Co., locomotive builders, Newcastle-on-Tyne, and that he helped to build two engines for the Newcastle and Carlisle Ry.

M. C. Colcleugh, heretofore accountant to the General Superintendent Western division C.P.R. at Winnipeg, has entered into partnership with P. Langlois, formerly chief clerk in the C.P.R. baggage department Winnipeg,

and will conduct a real estate office in Winnipeg.

F. E. Ward, who has been appointed General Manager, Great Northern Ry., U.S.A., commenced his railway career in the G.T.R. offices in Montreal in 1881, and was taught shorthand by J. Osborne, now General Superintendent C.P.R. at St. John, N.B. He joined the G.N. Ry. in 1886.

J. E. Muhlfeld, formerly Superintendent of Rolling Stock and Machinery, Intercolonial Ry., who has been appointed Superintendent of Motive Power, with jurisdiction over the Chicago, Newark and Cleveland divisions of the Baltimore and Ohio Rd., has his headquarters at Newark, Ohio, and not Newark, N.J., as stated in our last issue.

S. Phipps, at one time G.T.R. locomotive foreman at Belleville, Ont., died at Ailsa Craig, Ont., recently, aged 85. One son is Assistant Master Mechanic C.P.R. at Winnipeg, four other sons are in the mechanical service of the C.P.R., G.T.R. and Wisconsin Central Rd., and the only daughter is married to a dispatcher on the Chicago and North Western Rd.

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W. J. Miller has been elected Secretary pro tem of the C.P.R. Club, Toronto Jct., Ont., vice G. B. Williams, removed to Winnipeg.

J. X. Perrault, Montreal, and C. N. Bell, Winnipeg, will, it is said, be secretaries of the Transportation Commission to be appointed by the Dominion Government. This Commission must not be confounded with the proposed Railway Commission, the bill for which will be considered by Parliament at the current session.

J. J. Scully, chief clerk to the General Superintendent, Central Division, C.P.R., was presented with an onyx clock, onyx candelabra and other articles by the chief clerks of the divisional offices; with a cabinet of silverware by the other officials of the division, and a set of hand-painted china by the Brotherhood of Locomotive Engineers at Winnipeg recently, on the occasion of his marriage.

L. W. Powers, who was recently promoted from the position of trainmaster, Atlantic division C.P.R., to that of chief clerk to the Manager of Transportation, has been in the Co.'s employ for about 22 years, filling the positions of junior clerk, superintendent's clerk, car distributor and trainmaster. He learned telegraphy in 1872 when he was 13 years old, and was for some years in the employ of the Western Union Telegraph Co.

E. A. James, whose portrait appears on the first page of this issue, was born in London, Eng., 1865, and entered railway service on the C.P.R. in 1881 as operator at Winnipeg Jct., since which his record has been: 1882 to 1884, operator at Winnipeg; 1884 to 1892, train dispatcher at Winnipeg; 1892 to 1897, Chief Train Dispatcher at Winnipeg; 1897 to 1901, Superintendent, Brandon section, Manitoba branch lines and Winnipeg terminals; 1901 to Oct., 1902, Superintendent of Transportation for the Western division, all this service with C.P.R.; Oct., 1902, to date, General Superintendent Canadian Northern Ry. at Winnipeg.

R. R. Jamieson, who has been appointed General Superintendent of the Western Division C.P.R. at Calgary, Alta., was born in Wentworth county, Ont., Dec. 12, 1856, and entered railway service in 1871 as telegraph operator Great Western Ry., since which he has been consecutively: 1874 to 1879, telegraph operator G.T.R.; 1879 to 1880, in charge of construction of telegraph Indianapolis, Delphi and Chicago Ry. at Delphi, Ind.; 1880 to 1884, agent Credit Valley Ry., Ont. In 1884 the C.V. Ry. was absorbed by the C.P.R. and Mr. Jamieson was appointed train dispatcher, and Assistant Superintendent in 1890, subsequently being Superintendent at Farnham, Que., until Mar. 1902. From Mar., 1902, to Mar., 1903, he was Superintendent C.P.R. at Cranbrook, B.C.

S. J. Hungerford, who has been appointed acting Master Mechanic, C.P.R., at Calgary, Alta., was born at Bedford, Que., 1872, and entered railway service in 1886 as apprentice in the machine shops of the old South-Eastern Ry., at Farnham, Que. From 1890 to 1893, with the exception of a period with the C.P.R. at Chappleau, in 1891, he was not in railroad service, and re-entered railway service in 1893 as machinist and airbrake man, Central Vermont Ry., St. Albans, Vt., remaining there until 1894, since which his record has been: 1894 to 1897, charge hand, C.P.R., Windsor st., Montreal; 1897 to 1900, charge hand, C.P.R., at Farnham, Que.; 1900 to 1901, locomotive foreman, C.P.R., at Megantic, Que.; 1901, general foreman, C.P.R., McAdam Jct., N.B.; 1902 to 1903, locomotive foreman at Cranbrook, B.C.

D. W. Campbell, who has been appointed General Superintendent of the C.P.R. Atlantic steamers, was born in Montreal, July

15, 1860, and entered transportation service in 1876, as clerk in the office of the Beaver Line of steamships to Liverpool, being made Freight Manager in 1892, and General Manager, with full control of the line in England as well as Canada, in 1897. In 1899 the Beaver Line was sold to Elder, Dempster & Co., and Mr. Campbell was appointed Canadian Manager, with charge of all vessels of that Co. sailing from Canada and other North Atlantic ports, this including the regular lines to Liverpool, Bristol and London. He was instrumental in obtaining a Dominion subsidy for the establishment of a winter line from St. John, N.B., to Liverpool, which was inaugurated by the steamers then owned by the Beaver Line.

B. W. Folger, who has been appointed Manager of the Niagara Navigation Co., is a son of M. H. Folger, of Kingston, Ont., where he was born April 8, 1872. He has been connected with steamboat affairs practically since he was 17 years old. For eight years he was General Passenger Agent of the Thousand Islands Steamboat Co., and General Manager of the St. Lawrence River Steamboat Co., embracing the American line to Montreal, both of which companies operate among the Thousand Islands and across the foot of Lake Ontario in connection with the New York Central Rd. He was then appointed General Superintendent of the elevated lines of the Brooklyn Rapid Transit Co., where he remained for 18 months prior to his present appointment. Mr. Folger and his family have taken up their residence at 74 Prince Arthur ave., Toronto.

R. E. Larmour, who has been appointed Freight Claims Agent, Pacific division C.P.R., was born at Brantford, Ont., Sept. 26, 1868, and entered railway service Aug., 1884, at Stratford, Ont., as office boy in the office of his father, who was then Division Superintendent, G.T.R., remaining there until 1886; since which his record has been: 1886 to 1888, clerk in office of General Manager, Great Eastern Fast Freight Line, Detroit, Mich.; 1888 to 1890, accountant to General Superintendent, Chicago and Grand Trunk Rd., Detroit, Mich.; 1890 to 1892, G.T.R. local freight department, Detroit, Mich.; 1892 to 1898, transfer clerk, through freight from Wabash Rd. to G.T.R., at Windsor, Ont.; 1898 to Nov., 1899, chief clerk, freight office, C.P.R., at Fort William, Ont.; Nov., 1899, to May, 1900, acting agent, C.P.R., Fort William; May, 1900, to Aug., 1900, chief clerk, Superintendent's office, C.P.R., Fort William; Aug., 1900, to Feb., 1903, agent, C.P.R., Port Arthur, Ont.

J. E. Schwitzer, who has been appointed Division Engineer of the C.P.R., at Winnipeg, was born at Ottawa, Ont., April 19, 1870. During his undergraduate days at McGill College, Montreal, and at intervals of private practice and general survey and engineering work, he was engaged in the following railway works: 1888, rodman on location of the Vaudreuil and Ottawa Ry., and the Lake Timiskaming Colonization Ry.; 1889, Assistant Engineer on construction of the latter line; Aug., 1891, to Feb., 1892, Assistant Engineer on location and construction of the Ottawa and Gatineau Ry.; July, 1893, to Jan., 1894, Assistant Engineer in charge of location and construction, Ottawa, Arnprior and Parry Sound Ry.; Feb., 1894, to Dec., 1896, same position, same road; Engineer in charge of Central Counties Ry. from South Indian, for Canada Atlantic Ry.; and on surveys, Hull Electric Ry.; July, 1899, to Nov., 1900, Engineer in charge of construction, Rat Portage yards, C.P.R.; Nov., 1900, to Nov., 1901, Assistant Engineer in charge of maintenance of way, same road, Winnipeg; Nov., 1901, to March, 1903, Resident Engineer, same road, Winnipeg.

C. H. Nicholson, who has been appointed Manager of Transportation of the Muskoka Lakes Navigation and Hotel Co., was born at Belleville, Ont., and was educated there, at Queen's University, Kingston, Ont., and at the University of Maryland, Baltimore, Ohio.

He entered transportation service with the Richelieu and Ontario Navigation Co., and subsequently became purser on one of the steamers operated by C. F. Gildersleve, on the Bay of Quinte and River St. Lawrence. He remained as purser for three years, and became captain, having charge successively of the Hero, Hastings, Norseman and North King. When C. F. Gildersleve organized the Lake Ontario and Bay of Quinte Steamboat Co., he became General Freight Agent, and during the last five years he has represented the Co.'s interests in the U.S., with headquarters at Rochester, N.Y.



C. H. NICHOLSON.

TRANSPORTATION APPOINTMENTS.

Canadian Express Co.—The following appointments have been made: J. F. Bryce, Assistant to Vice-President; J. S. Patch, General Agent, Montreal; J. H. Moore, General Agent, Hamilton, Ont.; R. G. Wilson, General Agent, Toronto; R. A. Mitchell, Assistant to General Agent, Toronto; R. Murphy, acting Route Agent portion of Central division, vice G. Severs, assigned to other duties. W. P. Stericker, Agent Bonaventure Station, Montreal, vice R. Murphy. A. D. Gillis, Assistant to Agent, Bonaventure Station, Montreal.

Canadian Lake and Ocean Navigation Co.—Capt. J. B. Foote, hitherto Superintendent of the Algoma Central Steamship Line, at Sault Ste. Marie, Ont., has been appointed Marine Superintendent of the C. L. & O. N. Co., succeeding Capt. Thos. Donnelly.

Canadian Northern Ry.—E. Langham has been appointed Purchasing Agent and General Storekeeper. Office at Winnipeg.

J. P. Driscoll, heretofore Car Accountant of the C.P.R. at Montreal, has been appointed Superintendent of Car Service of the C.N.R. Office at Winnipeg.

John Riordan, heretofore Roadmaster, C.P.R., at Winnipeg, has been appointed General Roadmaster of Winnipeg terminals and lines west.

The Winnipeg Tribune of Mar. 16 announced that W. Pratt, Jr., formerly Assistant Superintendent of C.P.R. Sleeping, Dining and Parlor Cars at Winnipeg, had been appointed Superintendent of the Passenger Car Department of the C.N.R. On Mar. 25 we were informed at the head office of the C.N.R. in Toronto that nothing was known there of the appointment.

Canadian Pacific Ry.—F. A. Gascoigne has been appointed Car Accountant, vice J. P. Driscoll, resigned. Office at Montreal.

W. A. Cooper, Assistant Superintendent of Sleeping, Dining and Parlor Cars and Hotels at Montreal, has had his jurisdiction extended over the whole system.

J. H. Manning has been appointed Second Assistant Superintendent of Rolling Stock. At present he is located at Winnipeg.

D. W. Campbell, heretofore Manager of Elder, Dempster & Co. at Montreal, has been

appointed General Superintendent of the C.P.R. Atlantic steamers. Office at Montreal.

Max Toltz, heretofore Mechanical Engineer of the Great Northern Ry, U.S.A., has been appointed Consulting Engineer to assist the Superintendent of Rolling Stock, especially on the new shops which are being built at Montreal.

Gordon Henderson, heretofore ticket agent at Goderich, Ont., has been appointed town ticket agent, telegraph agent, and agent of the Dominion Express Co. at Windsor, Ont., vice B. Holman.

Jos. Kidd has been appointed ticket and telegraph agent at Goderich, Ont., vice G. Henderson, promoted.

J. E. Schwitzer has been appointed Division Engineer of the Central division, vice J. Woodman, resigned. Office, Winnipeg.

J. A. MacGregor has been appointed Car Service Agent at Winnipeg, vice J. K. McNeillie, transferred to Montreal.

E. J. Bulgin has been appointed General Superintendent's Accountant, Central Division, vice M. C. Colcleugh, resigned. Office, Winnipeg.

R. Binney, heretofore Roadmaster at Nipawin, Man., has been transferred to Winnipeg as Roadmaster, vice J. Riordan, resigned.

W. Cooper has been appointed Roadmaster at La Riviere, Man.

P. E. Barry has been appointed Assistant Roadmaster at Winnipeg, vice W. Cooper.

G. B. Williams, heretofore chief clerk in the Master Mechanic's office, Ontario division, Toronto Jct., has been appointed chief clerk, Master Mechanic's office, Central division, Winnipeg. He is succeeded at Toronto Jct.

by K. McConnell, hitherto clerk in the Master Mechanic's office there.

S. J. Hungerford, who has been appointed acting Master Mechanic C.P.R., at Calgary, Alta., was formerly locomotive foreman at Cranbrook, B.C., and not general foreman at Revelstoke, B.C., as stated in our last issue. He is succeeded at Cranbrook by A. H. Eager, formerly locomotive foreman at Megantic, Que.

A. S. Dawson has been appointed Division Engineer, Western division. Office, Calgary, Alta.

J. G. Taylor, heretofore Superintendent at Brandon, Man., has been appointed Superintendent of district 26, from Dunmore Jct., Assa., to Kootenay Landing, B.C., with the Fernie, North Star and Marysville branches, vice R. R. Jamieson, promoted. Office, Cranbrook, B.C.

James Brownlee, locomotive foreman at Medicine Hat, Assa., has been appointed Superintendent district 22, succeeding J. G. Taylor, transferred to Cranbrook, B.C. Office, Brandon, Manitoba.

Cape Breton Ry.—Press reports state that R. W. Leonard, Chief Engineer and General Manager, has resigned and been succeeded by Jay Downer, with office at Port Hawkesbury, N.S.

Grand Trunk Ry.—Nicol McNicol has been appointed Locomotive Foreman at Fort Erie, Ont., vice C. Battley, resigned.

W. Wells is reported to have been appointed foreman of the wheel shop at Montreal, vice A. Dutton.

A. Patterson, foreman of the G.T.R. blacksmith shop at Montreal, has retired after 35 years' service with the Co.

The following agents have been installed: Stanfold, Que., F. E. Poitras; Doucets Landing, Que., J. I. Delisle; Newtonville, Ont., L. Buller; Kerwood, Ont., J. B. Hodgins; Watford, Ont., D. O'Neil; Appin, Ont., W. G. Hacking; Brantford, Ont., G. A. Stokes; Port Dover, Ont., W. Faskin; Allenford, Ont., J. L. Taylor; Ayton, Ont., F. D. Stewart; Hepworth, Ont., D. McBride; Wiarton, Ont., R. Laurie; Lucknow, Ont., H. Ham; Brussels, Ont., J. Milhausen; Milverton, Ont., C. Totten; Denfield, Ont., J. W. Gray; Brucefield, Ont., D. Alair; Haslett Park, Mich., J. G. Marsh; South Bend, Mich., J. C. Graham; Griffith, Ind., C. J. Wheaton; Armada, Mich., F. H. Wilder.

Great Northern Ry. of Canada.—Consequent on Mackenzie, Mann & Co., having obtained control of this line, a number of changes in the officials are imminent. As this is written (Mar. 28), D. B. Hanna, Third Vice-President of the Canadian Northern Ry., is in Quebec, in connection with the matter. It is likely that some of the present officials will be replaced by Canadian Northern men and some of the officials' headquarters may be removed to Toronto.

A. J. Gorie, now Superintendent of the C.N.R. at Port Arthur, Ont., is mentioned as is likely to take charge of G.N.R. operating.

Great Northern Ry., U.S.A.—J. D. Farrell, formerly President and General Manager of the Pacific Coast Co., who was recently chosen President of the Northern Steamship Co., has been appointed Assistant to the President of the Great Northern Ry., with headquarters at St. Paul, Minn. He was formerly Assistant General Superintendent

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and afterward General Superintendent of the Western district of the G.N.R.

F. E. Ward, heretofore General Superintendent, has been appointed General Manager.

G. B. Smith, formerly ticket agent at Tacoma, Wash., is reported to have been appointed soliciting freight agent at Vancouver, B.C.

Intercolonial Ry.—A. J. Stevens, Assistant Engineer of Construction, is reported to have resigned to engage in general engineering and contracting at Toronto.

T. W. Hennessy has been appointed Mechanical Foreman at Truro, N.S.

Some changes are said to be imminent in the Toronto office, but up to Mar. 25 no definite information was obtainable.

Kettle Valley Lines.—Warrington has been appointed Superintendent. Office, Grand Forks, B.C.

Lake Erie and Detroit River Ry.—R. J. Tait, heretofore city soliciting freight agent at London, Ont., has been appointed local freight agent at Walkerville, Ont.

Montreal Street Ry.—E. Blair, heretofore Assistant to the General Manager of the Quebec Ry., Light and Power Co., has been appointed Assistant Superintendent of the Montreal Street Ry. and the Montreal Park and Island Ry., and will report direct to the Superintendent.

The Montfort and Gatineau Colonization Ry. having been acquired by the Great Northern Ry. of Canada, all communications pertaining to traffic, car service and operation of same should be addressed to the officers of the respective departments of the G.N.Ry.

Muskoka Lakes Navigation and Hotel Co.—The Muskoka and Georgian Bay Navigation Co. and the Muskoka Navigation Co. have been amalgamated under this title. The officers are: President, S. Barker, Hamilton, Ont.; Secretary-Treasurer, A. P. Cockburn, Gravenhurst, Ont.; General Manager of Transportation, C. H. Nicholson, Gravenhurst, Ont.; Manager of Royal Muskoka hotel, A. F. Campbell.

Toronto, Hamilton and Buffalo Ry.—H. J. Broderick has been appointed ticket accountant, with office at Detroit, Mich., vice L. D. P'Pool, resigned. Mr. Broderick is also ticket accountant of the Michigan Central Rd.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease
July	\$3,246,620.51	\$2,070,900.25	\$1,175,711.25	\$79,844.32+
Aug.	3,554,184.56	2,191,283.11	1,362,901.46	57,269.36+
Sept.	3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+
Oct.	4,127,402.07	2,511,267.44	1,616,134.63	149,095.41+
Nov.	3,976,068.87	2,417,828.63	1,558,240.24	117,362.10+
Dec.	3,959,146.15	2,286,704.31	1,672,441.84	103,750.33+
Jan.	3,148,455.27	2,231,684.50	916,770.77	96,309.97+

\$25,663,358.85 \$15,950,404.16 \$9,712,954.69 \$661,654.27+

Approximate earnings for Feb. \$2,795,000, against \$2,338,000 for Feb., 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Jan., \$197,279.63; net earnings, \$65,734.42, against \$192,156.32 gross and \$63,042.35 net for Jan., 1902. Net earnings for seven months ended Jan. 31, 1903, \$598,969.54, against \$569,833.36 for same period, 1901-02. Approximate earnings for Feb. \$184,990, against \$195,175 for Feb., 1902.

MINERAL RANGE RY.—Approximate earnings for Feb., \$40,627, against \$41,259 for Feb., 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Jan., \$455,

576.34; net earnings, \$168,681.89, against \$400,715.05 gross and \$191,184.98 net for Jan., 1902. Net earnings for seven months ended Jan., 1903, \$2,287,271.58, against \$2,130,457.48 for same period 1901-2. Approximate earnings for Feb., \$441,737, against \$387,681 for Feb., 1902.

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase.	Decrease.
Jan.	\$2,634,200	\$2,278,978	\$355,222	....
Feb.	2,432,661	2,018,926	413,735	....
	\$5,066,861	\$4,297,904	\$768,957	....

The following figures are issued from the London, Eng., office:

GRAND TRUNK RY. CO.

Revenue for Jan.:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£428,300	£364,000	£64,300	....
Working expenses	319,500	253,400	66,100	....
Net profit. . .	£108,800	£110,600	....	£1,800

GRAND TRUNK WESTERN RY.

Revenue for Jan.:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£93,400	£81,000	£12,400	....
Working expenses	82,500	65,800	16,700	....
Net profit.	£10,900	£15,200	....	£4,300

DETROIT, GRAND HAVEN AND MILWAUKEE RY.

Revenue for Jan.:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£19,500	£23,100	....	£3,600
Working expenses	14,700	13,200	1,500	....
Net profit.	£4,800	£9,900	....	£5,100

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan., to Feb. 28, 1903:

	1903.	1902.	Increase.	Decrease.
Grand Trunk. . .	£837,611	£703,131	£134,480	....
G. T. Western. .	164,274	143,590	20,684	....
D. G. H. & M. .	39,250	36,410	2,840	....
Total.	£1,041,135	£883,131	£158,004	....

Taxation of C.P.R. Lands.

The question of the taxation of the C.P.R. Co.'s lands, which has recently been before the Manitoba Court of King's Bench, is of considerable interest, and as the reports which have appeared in the daily papers have been very meagre and in many cases incorrect, the following statement will be of interest. The cases were The Municipality of North Cypress vs. The C.P.R. Co., The Municipality of Argyle vs. The C.P.R. Co. and the Springdale School District, no. 263 of the Northwest Territories vs. The C.P.R. Co.

In the contract entered into between the Dominion Government and the C.P.R. Co. for the construction of the railway, it was agreed that the railway and all stations, station-grounds, workshops, buildings, yards and other property, rolling stock and appurtenances required and used for the construction and working of the railway, and the capital stock of the company, should be forever free from taxation by the Dominion or by any Province thereafter to be established or by any municipal corporation therein, and that the lands of the company in the Northwest Territories until they were either sold or occupied should also be free from such taxation for 20 years "after the grant thereof from the Crown."

A couple of years ago R. L. Richardson, then M.P. for Lisgar, moved a resolution in the House of Commons to have it declared that the 20 years' exemption of the company's lands from taxation commenced to run on Feb. 15, 1881, when the contract was ratified by Parliament. Strong exception was taken to this resolution by members on both sides of the House, on the ground that the interpretation of the contract was a matter for the courts and not for Parliament, and it was almost unanimously rejected. The Government, however, promised to arrange with the company for the submission of a case to the courts for the purpose of determining from what date the 20 years were to run, and the three actions above named were instituted with that object.

These cases came before Mr. Justice Richards at Winnipeg Feb. 11 last, when judgment was entered pro forma in favor of the C.P.R. Co., so as to facilitate an appeal to the full court of King's Bench, which was then sitting. An order was thereupon made consolidating the three cases, and the appeal was argued on Feb. 13, 14, and 18, before Chief Justice Killam and Judges Dubuc and Richards. H. M. Howell, K.C., and T. J. Mathers appeared for the plaintiffs, and J. S. Ewart, K.C.; J. Stewart Tupper, K.C., and F. H. Phippen represented the C.P.R. Co.

Counsel for the plaintiffs submitted that the exemption period ran from either the date when Parliament ratified the contract, or when the company earned the lands, or when it selected them. Counsel for the company, on the other hand, contended that the exemption ran from the issue of the letters patent granting the lands to the company. The court unanimously decided in favor of the company's contention, holding that the company's lands were not taxable until after 20 years from the issue of the patent therefor, and the judgment in the Argyle and Cypress cases was affirmed.

In the Springdale school district case, however, counsel for the plaintiffs submitted that they were entitled to succeed on another ground, viz.: that the exemption conferred on the company did not preclude school districts in the Northwest Territories from taxing the company's lands, inasmuch as at the time when the contract between the Government and the company was ratified by Parliament, the Territories had power to establish a system of local taxation for the support of schools, and that the contract with the company was not intended to bind the Dominion to restrict that power. The same question had been raised in the Supreme Court of the Northwest Territories about two years ago in a case instituted by the Government of the Territories in the case of the Protestant school district of Balgonie vs. the C.P.R. Co., which was heard before Judges Richardson, Rouleau, Wetmore, Macguire and Scott. Mr. Justice Rouleau died before judgment was delivered. Judges Richardson and Wetmore both decided that the contention was untenable. Judge Macguire was inclined to sustain the contention, but concurred in giving judgment for the company on another ground, while Judge Scott concurred without giving any reason. No appeal, however, to the Supreme Court was taken from this judgment, and it was supposed that the question was settled until it was again raised by counsel in this case during the argument, without it having been suggested in the reasons for appeal filed by the plaintiffs as a ground for a decision in their favor.

It was urged by counsel for the company that the intention to exempt the company's lands in the Territories from all taxation which the Dominion could then or thereafter control was clearly expressed. Parliament could not and did not attempt to restrict the taxation of the company's station grounds, workshops, etc., for Provincial or municipal

purposes in any of the then established Provinces, but in the Northwest Territories its authority was supreme and unlimited, and in exempting the company's station grounds, workshops, etc., and lands from taxation "by the Dominion" it was intended that those words should be interpreted in a broad sense, as including taxation by Parliament itself as well as taxation imposed by any authority delegated by Parliament or which Parliament had the right to control. The Territorial Legislative Assembly, and consequently a territorial school district, acts merely by authority delegated by the Dominion Parliament, and, therefore, taxation by the territorial school district is "taxation by the Dominion" within the meaning of the exemption. It was admitted by the plaintiffs that the company's lands would be exempt from taxation by this school district the moment they were included in a Province hereafter established in the Territories, which is a strong argument to show that the Territories, with only delegated and limited powers, were not to be permitted to tax these lands, while the Provinces to be thereafter carved out of them were admittedly restricted from such taxation. It was further pointed out that the interpretation contended for by the company had been accepted by the Territorial Legislature from 1884, when the first school ordinance was passed, down to the school ordinances of 1901, in all of which ordinances the exemption of the C.P.R. lands had been recognized. Then again it was strongly urged that when the contract was ratified by Parliament the Territories did not possess the right to tax for school purposes and had never attempted up to that time to exercise such a power. If, however, such power did exist it was subject to the express proviso that no ordinances to be made should be inconsistent with or alter or repeal any provision of any act of the Parliament of Canada then or thereafter expressly referring to the Territories, and its power (if any) to tax these lands was expressly limited by the C.P.R. Act, 44 Victoria, chap. 1, sec. 16.

Chief Justice Killam, with whom Judge Richards concurred orally, held, with much doubt and hesitation, that the plaintiffs were entitled to succeed on the ground that when the contract was made the Territories had power to establish the system of local taxation for the support of schools under which the plaintiffs' claim arose, and that the contract with the company was not intended to bind the Dominion to restrict that power. Judge Dubuc dissented from the Chief Justice on the ground that the taxation of school districts was taxation by the Dominion within the meaning of the clause exempting the company's lands from taxation by the Dominion, as the Territorial Legislative Assembly acts merely by authority delegated from the Dominion Parliament.

The three cases have been appealed to the Supreme Court of Canada, and will be heard at its May sittings.

An officer of the Great Northern Ry., U.S.A., states that that company is saving \$4,000 a day on its importations from the Crow's Nest pass mines in B.C., owing to the removal of the duty on coal imported into the U.S.

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Canadian Northern Ry. Construction.

Port Arthur Easterly.—Beyond stating that survey parties are in the field in the vicinity of Port Arthur with a view of locating a suitable line easterly, the officials have no information to give out. Press reports recently stated that H. K. Wicksteed, C.E., was running a preliminary line from the south end of Lake Nepigon to Shebandowan on the C.P.R. main line west of Port Arthur. (Feb., pg. 50.)

Winnipeg Shops.—A temporary building has been erected at Winnipeg to be used for the repairing of passenger cars, and the permanent car shops is being utilized for building freight cabooses.

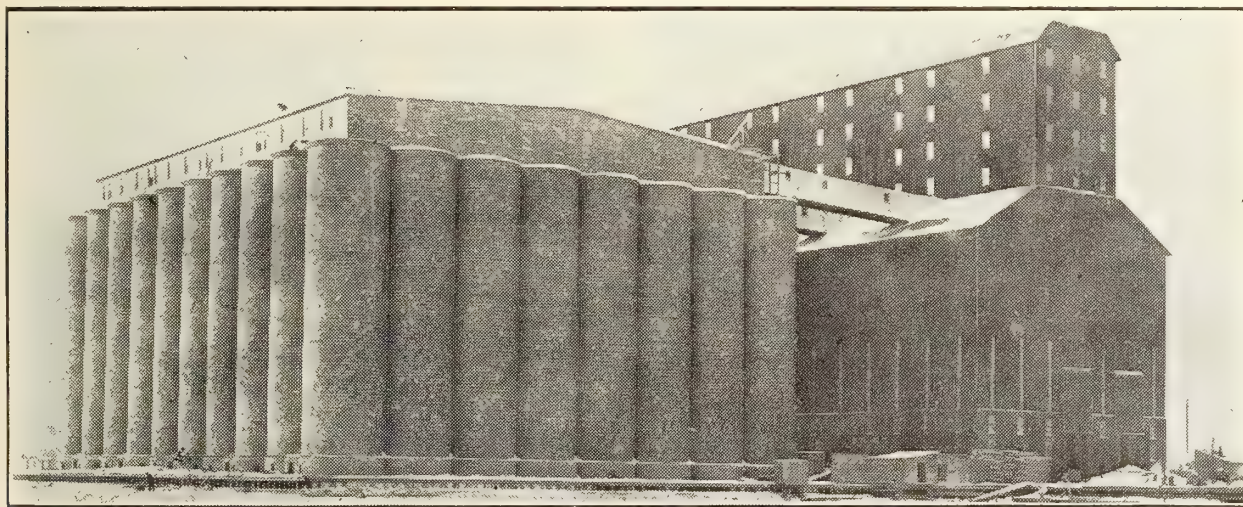
Winnipeg Terminals.—The Co. has acquired Fort Garry Park, about 24 acres, from the Hudson's Bay Co., and some additional property on the east side of Main st., adjoining the park, so that it now owns, with the exception of a few lots on Main st., all the land east of Main st. and south of Water st. to the Red and Assiniboine rivers, respectively. It was intended to utilize this area for terminal purposes, and to erect a station and

construction of 343 miles of branch railways by Nov. 15. The aid to be given is in the nature of a guarantee of bonds to the extent of \$10,000 a mile, of which one-fifth has to be expended upon rolling stock. The Commissioner of Railways, in explaining the act, stated that previous guarantees of bonds had been at the rate of \$8,000 a mile, but in consequence of the increased cost of labor and material the Government now proposed to give the additional guarantee of \$2,000 a mile. The additional \$2,000 a mile was to be expended upon equipment so that there would be sufficient rolling stock for the branch lines to be constructed. The time limit was fixed because the Government had been assured by President Mackenzie that the Company was in a better position to proceed with construction than last year, and because of the rapid changes that were taking place in the Province the Government realized that the time might shortly come when it might be possible for the people of the Province to secure the construction of railways without a guarantee at all. The contract, it was explained, had been made with the Western Extension Ry. Co., which had agreed to amalgamate with the Canadian Northern Ry. Co., but the

ed and track laid in 1902, leaving 6 miles to be completed by Nov. 15 in order to carry out the terms of the contract. (Feb., pg. 51.)

Sperling to Morris and Easterly.—A projected branch, for which sanction is being asked at the current session of the Dominion Parliament is from Sperling, on the Carman branch, to Morris, on the Morris-Brandon branch; and thence easterly to the main line from Winnipeg to Port Arthur, between St. Anne and the southern boundary of the Province. This line, with the other extensions of the Morris-Brandon branch subsidized by the Manitoba Legislature or projected by the bill before the Dominion Parliament would give a short line from the head of Lake Superior, through Southern Manitoba to Regina, Assa. (Feb., pg. 51.)

Roland or Myrtle to Morden.—The Manitoba Legislature has passed an act guaranteeing interest on bonds to the extent of \$10,000 a mile for the construction of a line from Roland or Myrtle, on the Morris-Brandon branch southwesterly to Morden, 20 miles. The line is required to be open for traffic by Nov. 15.



CANADIAN NORTHERN RAILWAY COMPANY'S ELEVATOR AT PORT ARTHUR, ONT.

hotel on the Fort Garry park property. Plans for the station and hotel have been submitted to the city council for approval, as it is proposed to close up some streets. The new station will be located on the northwest corner of the park property, fronting on Main st. and Broadway, and will contain the Winnipeg offices of the Co. The hotel building, it is suggested, will be on the northeast corner of Main st. and Broadway, and will be connected with the station by an arch, provided the city agrees. The estimated cost of the buildings and other improvements is about \$2,000,000, and they will be completed within a couple of years. In order to obtain an entrance to the new station a new steel bridge will be erected over the Assiniboine river. This bridge, it is proposed, shall be a double track bridge, one track for passenger and the other for freight traffic. When this work is completed the old Northern Pacific station on Water st. will be abandoned for passenger purposes, and will probably be utilized as a freight shed.

Manitoba Branches.—The Manitoba Legislature on Mar. 18 passed an act for aiding the construction of certain lines of railway in the Province, which provides for the con-

provisions of that act do not come into effect until after the amalgamation has taken place. As a matter of fact the provisional directors of the Western Extension Ry. Co. are all officials of the Canadian Northern Ry., which company has a bill before the Dominion Parliament giving the C.N.Ry. power to construct the several lines named, and authorizing the amalgamation. The following are the lines for which the act authorizes the guarantee of bonds:

	Miles.
Emerson easterly	20
Roland or Myrtle to Morden.....	20
Greenway southwesterly	40
Minto or Elgin southwesterly.....	30
Fairfax to Souris	15
Hartney to Virden and western boundary...	40
Portage la Prairie southwesterly.....	40
Carberry to Neepawa branch.....	20
Through Clanwilliam, Rosburn and Harrison to the western boundary.....	80
McCreary southerly.....	18
Swan River to western boundary.....	20
	343

Emerson Branch.—The Manitoba Legislature has passed an act guaranteeing interest on bonds to the extent of \$10,000 a mile for an extension from Emerson, easterly for 20 miles. Fourteen miles of this was construct-

Greenway Southwesterly.—The Manitoba Legislature has passed an act guaranteeing interest on bonds to the extent of \$10,000 a mile for the construction of a line from Greenway, on the Morris-Brandon branch, southwesterly, for 40 miles. The route has not been definitely located, press reports stating that either a route to the International boundary will be followed, where a junction could be arranged with the Great Northern Ry. branch line, at present terminating at St. John, N.D., or via Killarney to Wakopa, at the base of the Turtle mountains. The line is required to be open for traffic by Nov. 15.

Minto or Elgin Southwesterly.—Among the lines for which the Manitoba Legislature has guaranteed bonds to the extent of \$10,000 a mile is a branch either from Minto or Elgin, on the Hartney extension of the Morris-Brandon branch, southwesterly for 30 miles. The route has not been definitely located, but a 30-mile branch from Elgin southwesterly would reach close to the International boundary, where a connection could be made with the Great Northern Ry. branch, now terminating at Souris, N.D. The branch has to be open for traffic by Nov. 15.

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Burlington Elevator, St. Louis, Mo.	1,300,000 Bushels	
Grand Trunk Elevators, No. 2 and No. 3, Portland, Me.	2,500,000	"
Export Elevator, Buffalo, N.Y.	1,000,000	"
J. R. Booth Elevator, Depot Harbor, Ontario.	1,000,000	"
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas.	1,000,000	"
Eric R. R. Transfer & Clipping House, Chicago, Ill.	100 cars in 10 hrs.	"
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	1,500,000	"
Burlington Elevator Co., Peoria, Ill.	500,000	"
Canada Atlantic Railway Elevator, Coteau Landing, Que.	500,000	"
Northern Grain Co., Manitowoc, Wis.	1,350,000	"
Union Elevator, East St. Louis, Ill.	1,100,000	"
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Fairfax to Souris.—A guarantee of bonds to the extent of \$10,000 a mile has been authorized by the Manitoba Legislature for the construction of a line from Fairfax, on the Hartney extension of the Morris-Brandon branch, to Souris, 15 miles. The line has to be open for traffic by Nov. 15.

Hartney to Virden, Etc.—The Manitoba Legislature has voted a guarantee of bonds to the extent of \$10,000 a mile for the construction, by Nov. 15, of a continuation of the Hartney extension of the Morris-Brandon branch, from Hartney, for 40 miles. The proposal is to construct the line to Virden, and to continue it to the western boundary of the Province. Among the powers being asked for from the Dominion Parliament is authority to construct a line from Hartney northerly and westerly to Regina, Assa. (Feb., pg. 51.)

Portage la Prairie Southwesterly.—A guarantee of bonds to the extent of \$10,000 a mile has been voted by the Manitoba Legislature towards the construction of a line 40 miles in length, from Portage la Prairie, southwesterly, the line to be completed by Nov. 15. Speaking at Carberry prior to the meeting of the Legislature, the Minister of Public Works stated that among the lines for which contracts would be made by the Government this year was one from Portage la Prairie, through the Rosendale district, and that it would effect a junction with the Carberry-Neepawa line. The route of the branch has not been definitely located.

Carberry to Neepawa.—The Manitoba Legislature has authorized the guarantee, by the Government, of bonds to the extent of \$10,000 a mile for the construction of a line from Carberry to a junction with the Neepawa branch, constructed in 1902, about 20 miles.

Rosburn Branch.—A guarantee of bonds to the extent of \$10,000 a mile has been given by the Manitoba Legislature for the construction of 80 miles of line via Clanwilliam, Rosburn and Harriston to the western boundary of the Province, the line to be completed by Nov. 15. Grading on such a line was completed in 1902 for 25 miles from Rosburn jct., 5 miles north of Neepawa, and track was laid for practically the whole of that distance. The Macdonald and McMillan Contracting Co. has the contract for the grading on the remaining 65 miles. This branch will effect a junction at or near the boundary with the extension from Gilbert Plains. (Feb., pg. 51.)

McCreary Branch.—Provision has been made by the Manitoba Legislature for guaranteeing bonds to the extent of \$10,000 a mile for the completion of the line from Neepawa to McCreary, for which there was a guarantee of bonds of \$8,000 a mile in 1902. During 1902 the whole of the construction called for was completed and the grading of the line into McCreary, 18 miles beyond the point mentioned in the contract, was practically completed. The uncompleted portion of the grade and the tracklaying will be completed at once. (Feb., pg. 51.)

Swan River Branch.—The Manitoba Legislature has passed an act authorizing the guarantee of bonds to the extent of \$10,000 a mile for a branch from Swan river, 280 miles from Winnipeg, to the western boundary of the Province, 20 miles, the line to be completed by Nov. 15. The Dominion Parliament is being asked to authorize the construction of a line from Swan river westerly to a junction with the Co.'s authorized line at the crossing of the Saskatchewan river.

Grand View Extension.—Construction will be continued westerly from the point to which grading was completed in 1902. G. H. Strevel, of Winnipeg, who was the contractor in 1892, will probably be given the contract this year, and work will be pushed as

fast as possible. Vice-President D. D. Mann recently stated that tenders were being asked for the construction of steel bridges over the Saskatchewan at the three points of crossing. (Feb., pg. 51.)

Erwood, Westerly.—Construction will be pushed this year on the line from Erwood to Prince Albert, and it is expected that the grading will be completed and track laid well on to Prince Albert by the end of the year. N. & D. Keith, who did the grading on the line in 1902, will, it is understood, be the contractors this year also. (Feb., pg. 51.)

Edmonton.—At a meeting of the townspeople Mar. 5, the Mayor reported that the Hudson's Bay Co. had offered to sell 68 acres as a site for station buildings, yards and workshops, for \$25,000, and that the cost of the land to the town would be \$15,000, the H. B. Co. and the C.N.R. contributing \$5,000 each towards the total amount. The \$15,000 has been provided pending the passing of the necessary by-law to raise the money by taxation.

Edmonton, Westerly.—Two survey parties are in the field looking over routes westerly from Edmonton, and W. Burns, one of the surveyors, is investigating a reported pass through the mountains, which has as yet not been surveyed. (Feb., pg. 51.)

C.P.R. Betterments, Construction, Etc.

Nova Scotia. Reports are current in Halifax that in the event of the Company securing the contract for the fast trans-Atlantic line an extension of its railway will be built from a point in New Brunswick to Dartmouth, where terminals will be constructed. The Second Vice-President and General Manager says the reports are without foundation.

St. Andrews, N.B.—The Co. has acquired the property of the St. Andrews Land Improvement Co., and Sir Thos. Shaughnessy says this is with a view of extending railway facilities and providing new summer attractions.

The Atlantic and Northwest Ry. Co., which owns a line operated under lease by the C.P.R., is the defendant in a suit instituted by the heirs of the late Hon. R. Jones, who desire an injunction restraining the Co. from crossing the approaches to a toll bridge over the Richelieu river at St. Johns, Que. The Quebec Court of Appeal has reversed the decisions of the lower courts, and the injunction will be issued. The Co. has obtained leave from the Railway Committee of the Privy Council to cross streets and bridge approaches along the Chambly canal. The plaintiffs objected to this and applied for an injunction, but it was refused by the court at St. Johns, it being held that the Jones' interests had no title to the land on which the approaches to the bridge were erected.

Montreal Shops.—Tenders are being considered for the erection of three more buildings in connection with the new shops at Hochelaga. The buildings will be used for the making of car wheels. (Feb., pg. 52.)

St. Denis Subway, Montreal.—An arrangement has been completed between the C.P.R., the Montreal St. Ry. and the city council for the construction of a subway on St. Denis st., at a cost of \$30,000, to be paid one-half by the C.P.R. and one-quarter each by the city and Street Ry. Co.

Northern Colonization Ry.—Track is reported laid to Riviere Rouge, 6 miles from Labelle. An application is being made to the Quebec Legislature for an additional subsidy, so as to permit the line being extended from Nominique, to which point it is now under

construction, for a further distance of 30 miles. (Feb., pg. 52.)

Brockville Yards.—Plans have been prepared for new buildings in the freight yards, and the general improvements of the docks and wharves.

Ontario Division.—It is intended to replace the 72-lb. rails on a considerable mileage of the Ontario division with 82-lb. rails. These heavier rails will be laid on sections of the main line, between London and Embro, and on sections east of Toronto, while the 72-lb. rails taken up are being used to replace lighter rails on the Owen Sound branch and other lines.

Fort William-Winnipeg Gradients.—We are officially informed that the contract entered into with Foley Bros. and Larson, is solely for the reduction of gradients on the present line and not for double-tracking as reported. The gradients both east and west bound are at present 0.75%, and it is intended to reduce them to 0.4%. The contractors have commenced work at Rat Portage. Where new tracklaying is required 80-lb. rails will be used. The engineers in charge of the work are F. S. Darling, Division Engineer, with headquarters at Montreal, and J. B. L. McDonald, Assistant Engineer, with headquarters on the work. (Mar., pg. 94.)

Macgregor.—Press reports state that it has been decided to erect a roundhouse, coal sheds and a water tank at Macgregor, Man.

Brandon.—A press report states that it is proposed to erect a 3,000,000 bush. grain elevator at Brandon, Man.

Glenboro-Lauder Extension.—Grading is reported to have been completed in 1902 for 15 miles beyond Lauder, Man., towards the western boundary of the Province. (Aug., 1902, pg. 271.)

Pipestone Branch.—This branch, starting from Menteith jct., Man., was completed to Arcola, Assa., 94.9 miles, in 1900. Press reports say it is now intended to extend the line from Arcola to Regina, about 120 miles, that the work will be commenced at an early date, prospective contractors having been over the route in Jan.

Pheasant Hills Branch.—Work on the grading of this branch will be resumed at an early date, and it is said the line will be pushed northerly and westerly to Newdorf, 105 miles. Tracklaying on the grade completed in 1902, from the point where work ceased, to Scissors creek, is expected to be gone on with as soon as possible. (Feb., pg. 53.)

Saskatoon.—Press reports state that a roundhouse will be built at Saskatoon, Sask., on the Qu'Appelle, Long Lake and Saskatchewan Ry., and that the station will be enlarged in view of the putting on of a daily train service.

Alberta-Saskatchewan branches.—Under the charter of the Calgary and Edmonton Ry. there will probably be considerable construction during the year, the details of which have not been announced. Survey parties have been in the field all winter surveying routes for lines connecting Wetaskiwin easterly to Saskatoon on the Qu'Appelle, Long Lake and Saskatchewan Ry., and southeasterly. It is reported that if a line is constructed southeasterly it will join the transcontinental line at Swift Current, Assa. A line is also projected northerly from Strathcona, and negotiations are in progress for a site for a station in Edmonton. An act obtained by the C.P.R. last year would also cover some of the lines projected in this territory and for which surveys are in progress.

Pacific Division.—R. Marpole, General Superintendent, stated on returning to Vancouver from a recent visit to Montreal, that 13,000 tons of 80-lb. rails were to be delivered

during this year for the purpose of replacing the present 60-lb. rails between Vancouver and Revelstoke.

Vancouver Hotel.—Among the improvements which will be carried out this year will be the taking down of the old wing of the hotel, and rebuilding it to conform to the new design. (April, 1902, pg. 123.)

Winnipeg Station and Subway, Etc.—After lengthened negotiations between the city council and the company an agreement was reached a short time ago in reference to the construction of a subway on Main st., the erection of a station building and hotel, etc. The agreement provided for the closing of certain streets, and if ratified by the Manitoba Legislature work was to be commenced within a month thereafter. The Legislature refused the required ratification, and negotiations have been started over again. The plans submitted to the city council provided for the erection of a station and office building on Higgins ave., between Main and Mede sts., an hotel on the corner of Main st. and Higgins avenue, and a subway 100 ft. wide on the west side of Main st., the latter to be completed by Jan. 1, 1904. (Feb., pg. 53.)

The str. Montreal, built at Toronto in 1902, and being completed for the Riche-lieu and Ontario Navigation Co., was burned at Montreal recently. The loss is estimated at about \$400,000. A new steamer will be built.

Railway Track Laid in 1902.

In our Feb. number we published a table giving details of the mileage of steam and electric railways constructed in Canada during 1902. Owing to the fact that official information was not available from one or two companies, approximate figures were given in those cases. Some additional information is appended in regard to the electric railways:

	Miles.
Cape Breton Electric Co.:	
Town of Sydney.....	7.20
North Sydney to Sydney Mines.....	2.00
Sydney and Glace Bay Ry.....	9.20
Winnipeg Electric St. Ry.....	19.00
	1.252

These figures reduce the total given from 78,589 miles to 77,041 miles of electric track laid. This includes, with one exception, the whole of the track laid by electric railway companies during 1902. We have been unable to obtain any information from the Montreal Terminal Ry., and cannot say what track, if any, it laid last year. The Suburban Rapid Transit Co. of Winnipeg completed the grading and bridging of $3\frac{1}{2}$ miles of track from Winnipeg to Sturgeon Creek.

The following figures give the double track laid on steam railways:

Canadian Pacific Ry.:	
Brigham Jct. to Farnham, Que.....	6.40
Grand Trunk Ry.:	
Whitby Jct. to Darlington.....	9.86
Jordan to St. David's.....	14.01
	33.87

The G.T.R. also constructed 79.43 miles of double track between Port Huron, Mich., and Chicago.

Michigan Central Rd.:	
Ridgetown to Bismarck	18.17
	48.44

Canadian Merchant Marine Meeting.

A convention of those interested in the Canadian inland mercantile marine will be held at Ottawa, Ont., April 7, for the purpose of discussing matters of importance to the shipbuilding and shipping interests on the St. Lawrence river and Great Lakes. The convention has been called at the instance of the Kingston Board of Trade, which has recently been considering the taxes, fees and tolls levied upon Canadian transportation companies and carriers. The charges specially complained of are tonnage dues and inspection fees; fees payable to customs officers for services after hours and on holidays, and canal tolls. Upon the first point it is urged that the inspection service was established in the public interest and, therefore, it should be a charge on the general revenue and not on the shipowners; it is also asked that there should be a reciprocal arrangement with the United States regarding inspection. In regard to the second point it is pointed out that it is illogical to ask shipowners to pay for the hours customs officers work overtime in order to meet steamers at night, when no charges are made during the official hours of business of the customs houses. The canal tolls, it is

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urged, are an additional tax upon shipping and work against the development of the Canadian shipping trade. The receipts from tolls on the Welland and the St. Lawrence canals represent about one-fifth of 1% on the capital expended, and form so small an item in the general revenues of the country that its loss would not be apparent, while the benefit to the Canadian shipping trade would be considerable. The Kingston Board of Trade has invited other Boards of Trade to join in asking Parliament for legislation along the lines suggested and to be represented by a delegate at the meeting on April 7.

Shipping Matters.

The Canadian Pacific Ry., Sir Thos. Shaughnessy says, does not propose adding to its Pacific fleet at present. Additional steamers are to be added to the recently acquired Atlantic fleet, and it is said that A. Piers, the Co.'s General Superintendent of Steamships, will place orders for three or four large steamers while he is in Great Britain.

The Merchants Line, managed by Jacques & Co., of Montreal, have completed arrangements for operating an additional line from Montreal to Port Arthur, calling at Toronto, Hamilton, Windsor, Sault Ste. Marie and Fort William. This line will consist of three screw steamers: The Advance, built at St. Catharines in 1884, and having a register tonnage of 358 tons; the Glengarry, rebuilt at Kingston in 1886, and having a register tonnage of 438 tons, and one under construction in Scotland. It is understood that this steamer is the Wahconda, launched at Port Glasgow, Scotland, Mar. 13, for the New Ontario Steamship Co., in which Mackay Bros. are interested. This company is having a second vessel built at Port Glasgow to be ready by Sept. 1.

In 1901 several branches of the Canadian Order of Masters and Mates were organized in Toronto, Parry Sound, Collingwood, Midland, Penetanguishene, Owen Sound and Sarnia. Recently a Grand Association for Canada was formed with the following officers: Grand President, J. Wilson, Collingwood; Grand Vice-President, W. C. Jordan, Collingwood; Secretary, W. Ireland, Parry Sound; Grand Treasurer, M. McKay, Owen Sound; Grand Conductor, M. Leroux, Midland; Grand Tyler, W. Bell, Penetanguishene; Grand Auditors, G. H. Playter and A. McIntyre, Collingwood. Toronto and Sarnia did not send representatives to the meeting at which these officers were elected. Since this meeting was held an additional branch has been formed at Kingston. One of the objects of the association is to prevent improperly qualified men obtaining certificates. It is claimed that incompetent men have been given certificates enabling them to command steamers. While nominally in command these officers invariably hire a competent man to do the navigating.

The Canadian Lake and Ocean Navigation Co., which placed the four turret type steamers on the upper lakes in 1902, will add three new steamers to the line this season. These steamers are being built at different yards in England and will be named after three of the directors of the Co., but which of them has not yet been decided. Delivery will be made early in the summer. In connection with this line there will be operated, but owned independently though under the management of W. Petersen, President Canada Lake and Ocean Navigation Co., a line of steamers between Montreal and Québec and Rotterdam. The inwards cargo of these steamers will be steel rails for the Canadian Northern Ry. Co., for which W. Mackenzie, the President, says 40,000 tons have been ordered. Return cargoes of grain are to be provided at Montreal and Québec, and will be transport-

ed from Port Arthur via the Canadian Lake and Ocean Navigation Co.'s fleet to Depot Harbor, and thence over the Canada Atlantic and Great Northern lines of railway. The first steamer of this line sails from Rotterdam April 15.

Recent Manitoba Legislation.

The Manitoba Legislature passed the following acts relating to transportation interests at the session which closed Mar. 18:

Amending an act providing for the construction of a railway from Brandon northwesterly to the western boundary of the province by the Railway Commissioner, by authorizing the construction of an additional line from Darlingford southwesterly 10 miles.

Providing for the construction of a number of branch lines by the Canadian Northern Ry. Incorporating the Avondale-Brandon Central Ry. Co.

Respecting the Manitoba Cement Co.'s railway.

Incorporating the Midland Ry. Co. of Manitoba.

Incorporating the Minnedosa Power Co.

Amending the Municipal Electric Light, Gas and Telephone Act.

Incorporating the Portage and South Western Ry. Co.

Incorporating the Riverside Park Ry. Co.

Incorporating the Western Extension Ry. Co.

Amending the act incorporating the Winnipeg and Fort Alexander Ry.

Canadian Shipping on the Pacific.

The securing of the whole of the freight-carrying trade of Canada for Canadian bottoms is a question in which all shipping and railway men are specially interested. Every effort put forward to this end is met with the steady opposition of the U.S. shipping interests, and those residing in Canada who are interested in handling its traffic. An instance of the manner in which Canadian freight is handed over to be carried from a Canadian port to another part of Canadian territory is to be found on the Pacific coast, where the great bulk of the freight for the Yukon is carried from Vancouver, B.C., in U.S. steamers to Yukon ports. Two reasons why this is the case are urged: one, the scarcity of Canadian bottoms on the coast, and the other, the U.S. coasting regulations restricting the ports in Alaska to which Canadian vessels may run. It is hardly to be expected that there will be any increase in the number of Canadian vessels on the Pacific coast, if the Canadian coasting regulations continue to permit U.S. vessels to load freight at Vancouver and Victoria intended for Dawson and other points in the Yukon territory. The order-in-council passed in Jan. directed that goods taken from one part of Canada to another, even when transported through U.S. waters, should be carried in Canadian vessels. If its operations had been made applicable all over the Dominion it would have been sufficient to have diverted a considerable trade from U.S. to Canadian steamers, but the Department of Customs has given notice that the new order is not at present intended to interfere with the transit privileges now accorded U.S. vessels on the Pacific coast. A Pacific coast paper says that 80% of the shipments of Canadian goods to the Yukon territory are carried in U.S. vessels. If there was any attempt at a reciprocal arrangement by which Canadian vessels were accorded privileges in U.S. waters, in or around Puget Sound, or in Alaskan waters, there would be some ground for continuing the present arrangement, but seeing that the U.S. waters are strictly closed to Canadian coasting vessels, the concession is a one-sided one.

Incorrect Government Maps.

The Department of Railways and Canals publishes, in connection with its annual report, a series of maps showing the various railways and canals in the Dominion. The value of maps rests in their absolute accuracy to the date of their preparation. No date is mentioned on the maps, but it may be taken for granted that they are intended to show the railways as they existed on June 30, 1902. The first map purports to show the Dominion with the lines of railway indicated thereon. The Dominion is shown accurately enough, but the lines of railway as shown would not count up to anything like the mileage which the report shows to have been constructed up to June 30, 1902. The scale to which the map is drawn is too small to give the lines fully, and even those that are given do not accurately convey the information sought to be given. For instance, there is only one main-line shown as running between Montreal and Windsor, via Toronto, and this is lettered G.T.R., whereas the C.P.R. also has a line from Montreal to Windsor; the G.T.R. also has a line from Toronto to Sarnia, Ont., but this is not shown, neither are large numbers of branch lines, and the whole of the small lines throughout the Dominion. That this is not an old map, issued because it has always formed part of the report, is shown by the fact that the Canadian Northern Ry. is shown to have a railway stretching from Port Arthur, Ont., very near to Prince Albert, Sask. If this map is to be published in future it should be prepared on a sufficiently large scale to permit all the lines to be shown; but perhaps the best plan would be to drop it altogether, and perfect the five sheets, giving the lines on a larger scale, in such a way that when pasted together they would form a good railway map. The lines as shown on these sheets are by no means correct, there are a number of omissions of lines in operation, while others are included which have not been placed in operation. The transportation interests of Canada are waiting the production by the Government of a reliable map showing not only the railways, but the whole of the navigable waterways of the Dominion in relation to the railway system and to the ocean.

Toronto City and Suburban Railways.

The report of W. T. Jennings, M.I.C.E., presented to the Toronto City Council recently, on the radial and city railways, has been issued in pamphlet form. It contains a large amount of interesting information, and we regret that pressure on our space prevents us reproducing considerable portions of it.

The first section of the report deals with the suburban electric railways and the city railway. It is pointed out that the present city system is contained in an area seven miles long and 2½ miles deep from the lake side; that the suburban lines projected will in time be extended so as to cover the small towns and growing villages round about Toronto. With the exception of the Metropolitan Ry., the city and suburban electric railways are 4 ft. 11 in. gauge. A number of suggestions are made for extending the city lines, the most important being from Sunnyside, westerly by a new driveway into High Park. The routes mapped out for giving an entrance to the city of the different suburban lines, and enabling them to reach St. Lawrence market are:

TORONTO AND MIMICO Ry.—By changing the present location at Grenadier pond and cross-

ing the G.T.R. and along the suggested new driveway to Pearson ave., thence to Brock ave., and by Florence, Dufferin, Alma, Argyle, Czar, Armour, Defoe, Tecumseth, Duro, Wellington and Church streets to the market.

TORONTO SUBURBAN RY.—An extension to Regent st., thence eastward by Ruskin, Perth, Wallace and Margueretta sts. and Brock ave. to a junction with Mimico line at Florence st.

METROPOLITAN RY.—From present terminus on Yonge st., via Cottingham and Rathnelly streets, across the waterworks property to Macpherson avenue, thence under C.P.R. and Dupont st. by a subway, and along Bedford and Davenport roads, and Severn st., along the back of Collier st., across Park Road, thence to Bloor and Church streets to Maitland st., eastward to McMillan ave., and North Mutual st., to Shuter st., Jarvis st. and St. Lawrence market.

TORONTO AND SCARBORO' RY.—By widening Queen st. from Kingston road for 750 ft., thence along Eastern ave., over the Don to Water st., and by Front, Princess, Duke and Jarvis streets to the Market.

The second section of the report deals with steam railways. In this is a suggestion that the old belt line be completed by constructing a section $1\frac{1}{2}$ miles long from Toronto Jct. to Fairbank, and utilizing it as a transfer route for freight and for an electric passenger service in connection with the city street railway system; that the Esplanade be relieved of the G.T.R. through freight traffic by the construction of a line from York station westward to a junction with the C.P.R. at Leaside, thence by trackage to Toronto Jct., and by constructing lines to the Humber at Lambton, and a short branch to connect with the Hamilton line near Mimico. To provide access to the water front in Toronto bridges or subways are suggested at a number of points, thus doing away with level crossings. The report shows that on the operated steam railways in and around Toronto there are 105 crossings, of which 22 are absolutely safe, being either by overhead bridge, or subway; 34 are protected by being provided with gates or watchmen, or both, and 49 are unguarded.

Labor Organizations and Their Effect.

L. R. Johnson, Assistant Superintendent Rolling Stock, C.P.R., read a paper on "Labor organizations and their effect on Shop Practice," before the Canadian Railway Club at Montreal, Mar. 3. The subject was discussed under three heads: What are labor organizations? Are they necessary? Their effect. The organizations of to-day were very different and more comprehensive and far-reaching in their constitutions and influences than the guilds or companies of generations ago, or the more recent trades unions; they were labor organizations, and their protection of members was not so much a trades protection as it was a protection of the employed against the employer. Upon a review of his experience of 30 years as a workman, and as official of large corporations in different parts of the world, he found that if they wanted those under them to be men and do men's work they must be men themselves, and treat those under them as men, and let them see it was expected they should be men, and he had been very rarely disappointed. If officers were not prepared to act up to these principles they must not be surprised if the men organized; in fact, admit that there was a necessity for organization, and they must carry the responsibility of it. But is it not a fact that in the railway service to-day the directors and higher officials recognize the importance of a loyal staff of capable and efficient employees. The workman had also a very

powerful ally in public opinion, voiced by the public press, so that on this score there is not the necessity for unions or organizations that there was years ago. The most serious effect of the labor organizations is their effect on the men themselves as tradesmen or craftsmen, their loss of individuality and individual

liberty. Another serious effect was that the standard of our mechanics as to capabilities and workmanship is falling off; the organization is not breeding mechanics, the best men are dropping to the common level, instead of trying to lift up the poor man to the plane with the good ones.

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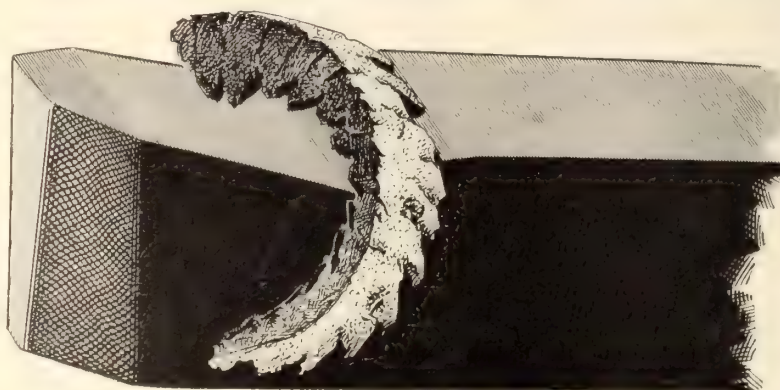
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Monorail Railways for B.C.

The application to be made next session of the British Columbia Legislature for authority to construct railways in that province on the monorail system, brings forward a system of railway construction hitherto unknown in Canada. F. Moberly, C.E., who is the principal promoter of the project, has been studying the operations of the monorail system in Great Britain and elsewhere, and is of opinion that it is one which is admirably adapted for use in a country like B.C. The proposal made for B.C. is a modification of

much in excess of the intention and estimate, a speed on curves of over 25 chains radius of 83 miles an hour, and a speed of 70 miles an hour on an ascent of 1 in 90, were attained.

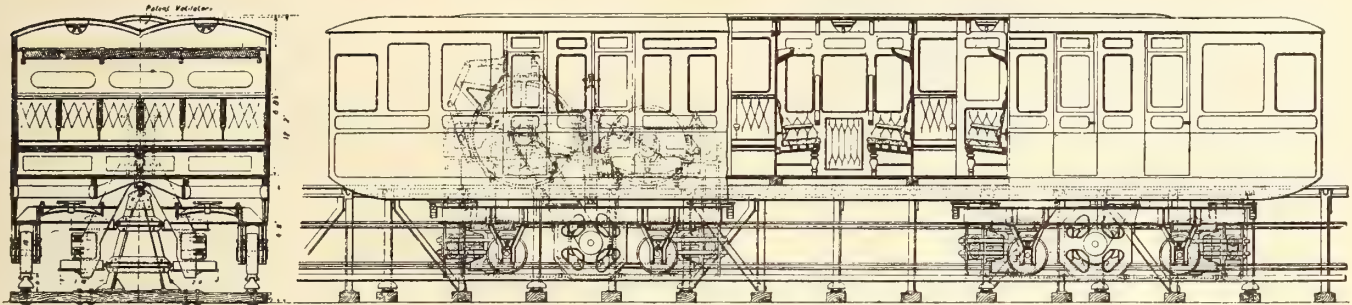
The system calls for the use of five rails, the principal one of which is the main track rail, or monorail, the others being guide rails. The monorail is supported on a continuous trestle-like structure, or succession of trestles, 3 ft. 11½ in. above the surface of the ties on which it is constructed, 2 ft. 8 in. wide at the base, and narrowing to 12 in. at the top. The rail will be 103½ lb. to the yard, and will be fixed on the top of

track rail. These wheels will be 5 in. wide, having a groove 2 in. deep and 3 in. wide to admit the track rail. The motor wheels of the car are to be driven by chains from the motors.

Railway Equipment Notes.

The Grand Valley Ry. is reported to have placed an order for 5 motor cars.

The Lake Erie & Detroit River Ry. has purchased five freight locomotives in the U.S.



ELEVATION AND SECTION MONORAIL CAR.

the system used in Ireland, the motive power being electricity instead of steam. Whatever lines may be constructed by the company, if it be incorporated, will be utilized as feeders for existing railways, and to open up sections of the country that cannot be reached by the ordinary railway or tramway.

The monorail system was first patented in 1821; in 1825 a short piece of line was constructed and operated successfully on the London, Eng., docks, and in 1864 the system was adopted to some extent in the Philadelphia coal regions. These lines were more or less experimental in their character, and used only for freight, and no attempt was made to bring it into use as a passenger line until after the improvements made by Latrue had been effected. As the north of Ireland was the pioneer in Great Britain in the adoption of electricity as a motive power for railways, on the line from Portrush to the Giant's

the trestle. The guide rails will form a provision for preventing an undue lateral or vertical movement of the cars. They will be double-headed, 30½ lb., and will be fixed on the sides of the trestle 1 ft. 1½ ins. and 2 ft. 9 11-16 ins. respectively, above the ties on which the trestle is built, two on each side. On the Irish line the cars are built more pronouncedly in the form of a saddle than are those proposed to be built for the Liverpool and Manchester line, plans of which are given on this page, and are hauled by a locomotive, also saddle built. For the high speed lines, such as the Liverpool-Manchester one, three classes of cars have been designed, to accommodate 72, 50 and 38 passengers respectively, and each train will consist of a single car. The cars will be formed with long pointed ends in order to reduce the resistance of the wind, and with full machine equipment will, for each of the smallest size, weigh 39 tons. The chief

The G.T.R. is reported to be in the market for 1,000 coal cars and 300 stock cars.

The Canadian Northern Ry. is building 30 freight cabooses at its Winnipeg shops.

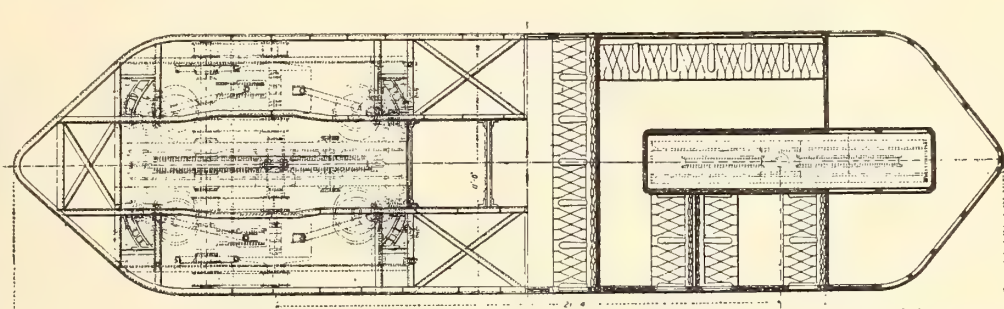
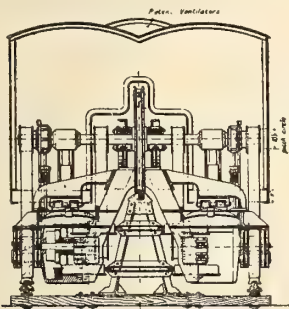
The G.T.R. is contemplating building 25 switching locomotives at its Montreal shops.

The C.P.R. has placed an order for 100 refrigerator cars to be built at its Perth, Ont., shops.

The G.T.R. is reported to be building 10 1st class passenger cars at its Montreal shops.

The G.T.R. recently built 4 cabooses at its London, Ont., shops, and 15 more will be built there.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. has ordered 4 10-wheel 20 in. cylinder locomotives from the Baldwin Locomotive Works.



PLAN AND SECTION OF MONORAIL CAR.

Causeway, the south of Ireland took up the monorail, and in 1887-88 the first railway on that system was constructed from Listowel to Ballybunion, county Kerry, under the direction of F. B. Behr, who has been retained as consulting engineer by the promoters of the B.C. company. The Irish line was constructed after experiments in London, in 1886, had proved the value of the Behr improvements, and in 1897, after further experiments had been made, a high speed line was constructed at Brussels, Belgium. The Irish line has proved to be a safe and speedy means of conveyance in a rugged and sparsely populated district, and on the Belgian line with a carriage weighing about 70 tons, which was

feature of their construction is the main central frame of steel, forming the lower part of the car, and so built as to admit of being placed like a deep saddle over the trestle, the sides of the frame extending downwards to within 6 in. of the sole plate of the trestle. The interior of the car will be 6 ft. 8¼ in. in height from roof to floor, and the seats will be arranged, some across the width of the car and others along its length. The motor, 2½ tons in weight, will be placed in the front of the car, low down, thus keeping the center of gravity low. At each side of the car, on the inside of the saddle, will be small wheels to work on the guide rails, and in the centre of the car four vertical wheels bearing upon the

The Nova Scotia Steel Co. has ordered 100 coal cars from Rhodes, Curry & Co., Amherst, N.S.

The Intercolonial Coal Mining Co. has ordered 30 coal cars from Rhodes, Curry & Co., Amherst, N.S.

The Metropolitan Ry., Toronto, is adding a number of motor cars and freight cars to its equipment.

The G.T.R. has recently added to its equipment 5 first class passenger cars, 94 box cars, and 284 flat cars.

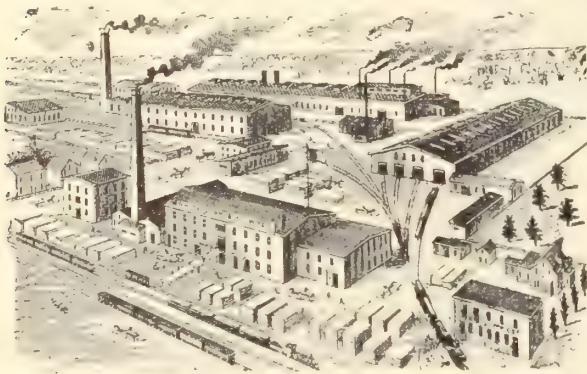
The B.C. Electric Ry. car shops in Vancouver have been completed, and car building has been commenced.

The Montreal Street Ry. is adding to its equipment 25 double truck motor cars; the bodies are 28 ft. long.

The Intercolonial Ry. is reported to have added to its equipment an official car, no. 75, for General Manager Pottinger.

The Kettle Valley Lines are reported to be in the market for 20 wooden hopper bottom ore cars of 30 or 40 tons capacity.

The Pere Marquette Rd. has brought two mogul locomotives into Canada, to be used on the Lake Erie and Detroit River Ry.



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The Toronto Ry. is building 30 large closed cars similar to those in use on Yonge st., and 10 open cars with a seating capacity of 60.

The Lake Erie & Detroit River Ry.'s equipment will continue to be lettered with that Co.'s name, and not with that of its owner, the Pere Marquette Ry.

The Reid Newfoundland Co. will, according to press reports, add a number of motor cars to its street railway equipment in St. John's in the spring.

The I.C.R. order for 5 locomotives, which the Canadian Locomotive Co. is now working on, is for simple 10-wheelers, cylinders 20 by 26 ins., total weight 175,000 lbs.

The Intercolonial Ry. expects to add to its passenger equipment this year 20 1st-class vestibuled passenger cars, 5 tourist cars, 3 parlor cars and 6 sleeping cars.

The G.T.R. has completed at its London, Ont., shops 200 flat cars, making a total of 800 built there since June last. They are 36 ft. long and 60,000 lbs. capacity.

The Irondale, Bancroft and Ottawa Ry. has bought from the G.T.R. a locomotive with 17x24 in. cylinders, and with air brake and steam car heating equipment.

The Toronto Ry. is utilizing a number of its small cars by splicing two together, thus making one car, having about 30% more accommodation than any car hitherto on the line.

The Cape Breton Ry.'s equipment consists of 3 locomotives, 52 flat cars, 1 1st class passenger car, 1 2nd class passenger coach, and 2 combination passenger, mail and express coaches.

The Quebec Central Ry. has, within the last few months, built at its shops 25 box cars, 36 ft. long, 60,000 lbs. capacity, equipped with Westinghouse air brakes; and will build a number more.

The C.P.R.'s order for 10 locomotives, which the Canadian Locomotive Co. recently commenced delivering, is for compound moguls, cylinders 22 and 35 by 26 ins., total weight 162,200 lbs.

The Elgin and Havelock Ry. has bought a locomotive from the Intercolonial Ry. It has not been decided what additional cars will be required, and for the present I.C.R. cars will be hired as needed.

The International Transit Co., Sault Ste. Marie, Ont., has received 5 motor cars and 3 trailers. It is expected its line will start operating in the spring. A snow-plough and a sweeper are said to have been ordered.

The G.T.R. placed the following equipment in service during 1902: 40 locomotives, 1,906 box cars, 650 flat cars, 122 gondola cars, 10 baggage cars, 5 1st class passenger cars, 10 2nd class passenger cars, total 2,703 cars.

The C.P.R. placed the following rolling stock in service during 1902: 92 locomotives, 51 passenger cars, 3,934 freight cars, 119 vans, 35 miscellaneous, including boarding cars, snow ploughs, steam shovels, etc., total 4,213.

The St. Anthony Lumber Co.'s railway from Whitney to Big Opeongo lake, Ont., is being operated by locomotives leased from the Canada Atlantic Ry. A number of 34 ft. flat cars have also been supplied by the Canada Atlantic Ry.

The Algoma Central and Hudson's Bay Ry. is having built by the Canadian Locomo-

tive Co. one simple consolidation locomotive, cylinders 21 by 28 ins., total weight 164,300 lbs., and one simple 10-wheeler, cylinders 20 by 26 ins., total weight 150,000 lbs.

The Schomberg and Aurora Ry. has purchased a light locomotive, and is in treaty for another. It has also secured 12 box cars, and is arranging for a passenger equipment, to consist of combination passenger and baggage cars and combination passenger and freight cars.

The Huntsville, Lake of Bays and Lake Simcoe Navigation Co. is in the market for 1 locomotive, 1 passenger coach and 1 box car. The Co. will build 15 flat cars at its machine shop at Huntsville, Ont., for the mile of railway it is about to construct at the portage of the Lake of Bays.

The Temiskaming and Northern Ontario Ry. contractor, A. R. Macdonell, has ordered 75 flat cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S. He also ordered a rapid unloader, a ballast plow, and a steam shovel, and on Mar. 21 was about to order 4 locomotives.

The Brockville, Westport and Sault Ste. Marie Ry. is about to add to its equipment one locomotive, one 1st class passenger car, one combination passenger and baggage car,

building its own cars in future, and it is reported will build six double truck open cars 45 ft. in length, for the summer trade.

The Baldwin Locomotive Works record of recent construction, no. 39, contains illustrations of a number of locomotives completed during the past year, including a compound mogul locomotive for the Quebec and Lake St. John. Ry. Record no. 40 is devoted to "The proper handling of compound locomotives," a paper read by W. J. McCarroll before the Travelling Engineers' Society.

The Baldwin Locomotive Works, Philadelphia, are now turning out six complete locomotives daily. The plant is being operated day and night, and President Converse says it is impossible to meet the demands of the railways for motive power. The Baldwin Works employ 13,000 men, and are now delivering seven locomotives every six days upon the order of the Pennsylvania Rd. for 350.

The Cumberland Railway and Coal Co. has ordered six side-dump coal cars of 80,000 lbs. capacity from Rhodes, Curry & Co., Amherst, N.S. The cars will weigh 43,500 lbs., and measure 34 ft. long, 8 ft. 6 in. wide and 9 ft. 2 in. high, to be built of wood, lined with steel, and have wooden underframes. The special equipment includes Simplex bolsters and 33 in. cast-iron M.C.E. standard Rhodes, Curry & Co.'s wheels.

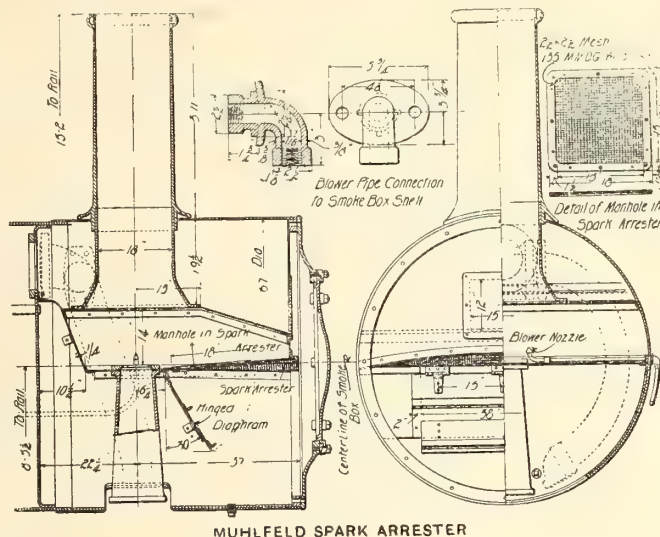
The C.P.R.'s 10 1st class passenger cars, which are being built by Rhodes, Curry & Co., Amherst, N.S., are exact duplicates of the 1st class cars which the C.P.R. has been building at its Hochelaga shops, particulars of which we have already published. The 10 1st class cars, 6 sleeping cars and 2 dining cars being built for the Co. in the U.S. are also duplicates of the same classes of cars the Co. has been building at Hochelaga.

The St. Thomas, Ont., Street Ry. equipment consists of six closed and two open motor cars and two trailers. When the city council took over the line, under its mortgage, it was estimated that it would take about \$1,600 to put the cars in thorough repair. Several of the cars have been overhauled and fitted with new fenders. Additional equipment will be required as soon as the city council obtains the necessary powers to spend money on the line.

The Canadian Northern Ry. has placed the following orders for delivery during the current year: 27 locomotives from the Canadian Locomotive Works, 6 2nd class cars, and 3 baggage and mail cars to be built in Canada; 4 1st class passenger cars, 3 sleeping cars, and 2 tourist cars, to be built in the U.S.; 250 30-ton box cars from Rhodes, Curry & Co., Amherst, N.S.; 600 30-ton box cars and 50 stock cars, to be built in Canada; and 200 30-ton box cars to be built in the U.S.

The C.P.R.'s 1,500 flat cars now being built, of which 500 were ordered from Rhodes, Curry & Co., Amherst, N.S., and 500 from Sault Ste. Marie, Ont., are 36 ft. 8 in. long, 8 ft. 10 ins. wide over frame, and of 60,000 lbs. capacity. The special equipment includes Simplex truck and body bolsters, Simplex inside hung brake beams, Westinghouse air brakes, Canada Switch and Spring Co.'s springs, St. Thomas Brass Mfg. Co.'s M.C.B. standard journal bearings, Susemihl roller side bearings.

The C.P.R. has settled the details of the order for the 50 locomotives placed with the American Locomotive Co., in Dec., 1902, as follows:—4 tandem compound 10-wheeler



MUHLFELD SPARK ARRESTER

one combination baggage and express car, 8 box cars, 50,000 lbs. capacity; and 3 stock cars, 40,000 lbs. capacity.

The annual report of Rhodes, Curry & Co., Ltd., Amherst, N.S., for 1902, presented at the recent annual meeting, showed the year's business, aggregating \$2,400,000, to be the largest in the Co.'s history. A dividend of 12% was declared. It is proposed to increase the capital to \$1,000,000.

The Intercolonial Ry. has ordered from Rhodes, Curry & Co., Amherst, N.S., 2 baggage cars, 300 box cars, 80,000 lbs. capacity; 70 box cars, 60,000 lbs. capacity; 8 refrigerator cars and 9 auxiliary cars. Further orders have been placed for 70 box cars, 60,000 lbs. capacity, and 21 stock cars.

The Temiskaming and Northern Ontario Ry. Commissioners have ordered 4 locomotives from the Canadian Locomotive Co.; these are in addition to those the contractor, A. R. Macdonell will buy. The Commissioners contemplate ordering a few passenger, combination baggage and mail, box and flat cars.

The Winnipeg Electric Street Ry., press reports state, has had a heavy freight truck built for use in construction work, and is having six double truck open motor cars, and six closed cars, built in Toronto. The Co. proposes

freight locomotives, to be delivered 2 in June and 2 in July; 34 22 and 35 x 30 in. two-cylinder compound 10-wheeled freight locomotives, to be delivered, 24 in June and 10 in July; 10 20 x 26 in. 10-wheeled passenger engines, to be built during June; 2 15 and 28 x 26 in. tandem compound 10-wheeled passenger locomotives, to be built during June and July. All the locomotives will be built at the Schenectady Works.

The Galt, Preston & Hespeler Ry. has equipped its freight motor with a Westinghouse quick-action automatic air brake. The apparatus is identical with that used for equipping locomotives in steam railway service, except that the air compressor is operated by a small independent motor instead of steam. The capacity of the compressor will give sufficient air to operate successfully the brakes on 25 ordinary freight cars. Similarly equipped freight motors are in service on the Niagara, St. Catharines & Toronto Ry., and the Ottawa Electric Ry. The Oshawa Ry. is about to place an order.

The Sydney & Louisburg Ry. has ordered two simple consolidation locomotives from the American Locomotive Co. Weight about 178,000 lbs. Size of cylinder, 21 in. x 26 in.; driving wheels, 50 in. dia.; prairie type fire box. Engine to be supplied with 8 wheel tender. Water capacity, 4,000 galls.; coal capacity, 8 tons; pilot and headlight both back and front; two sand boxes. Dia. boiler, smoke box end, 72 in.; width of firebox, 70 in.; length of firebox, 76 in.; working pressure, 200 lbs. per sq. in. Fire box crown, side, and back sheets, steel; 368 two-inch tubes 13 ft. 11 in. long. Westinghouse automatic air brakes; driving brakes applied at back side of wheel. Delivery is to be made in Sept.

Rhodes, Curry & Co., Amherst, N.S., received the following orders for equipment during 1902:—C.P.R.: 10 passenger coaches; 1,100 box cars, 80,000 lbs. capacity; 100 refrigerator cars, 80,000 lbs. capacity; 100 stock cars, 60,000 lbs. capacity; 500 flat cars, 60,000 lbs. capacity. Cumberland Ry. and Coal Co.:—6 side-dump cars, 80,000 lbs. capacity; 75 coal cars, 32,000 lbs. capacity. Dominion Atlantic Ry.:—2 passenger cars, 20 flat cars, 60,000 lbs. capacity. Intercolonial Ry.:—2 postal cars, 300 box cars, 80,000 lbs. capacity; 70 box cars, 60,000 lbs. capacity. Inverness and Richmond Ry.:—75 coal cars, 60,000 lbs. capacity. Midland Ry. of Nova Scotia:—4 box cars, 60,000 lbs. capacity. Quebec and Lake St. John Ry.:—100 box cars, 80,000 lbs. capacity. Shore Line Ry.:—5 flat cars, 40,000 lbs. capacity. Temiscouata Ry.:—10 flat cars, 60,000 lbs. capacity.

The C.P.R.'s 32 single 10-wheel passenger locomotives, which are being built in Scotland, have the following general dimensions:

Weight on drivers.....	126,000 lbs.
Total weight.....	165,000 lbs.
Diameter of cylinders.....	20 in.
Stroke of pistons.....	26 in.
Diameter of drivers.....	69 in.
Type of boiler—Radial stayed extended wagon top.	
Working steam pressure.....	210 lbs. per sq. in.
Heating surface—total.....	2,421 sq. ft.
Tubes—number.....	328
“ outside diameter.....	2 in.
“ length.....	13 ft. 2½ in.
Firebox—length.....	9 ft. 6 in.
“ width.....	3 ft. 5½ in.
“ material.....	Steel
Grate area.....	33.2 sq. ft.
Tank capacity—water.....	5,000 imp. gall.
Coal capacity.....	10 tons

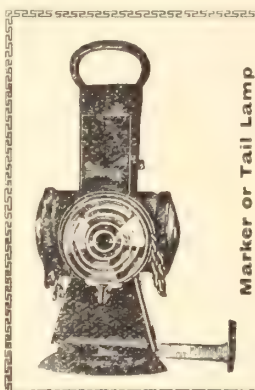
The special equipment includes Krupp steel

axles, crucible driving wheel tires, disc steel-tired truck wheels and tender wheels, Canada Switch and Spring Co.'s spring and wheel centres.

The C.P.R. has placed an order in Saxony for 20 compound freight locomotives, two cylinder Pittsburg system, to be delivered by Sept. 15. They are duplicates of the Co.'s 10-wheel passenger locomotives, except that the driving wheels are 63 ins. over tire instead of 69, and the tender truck wheels are 34 ins. over tire instead of 40. Following are the general dimensions:

Weight on drivers.....	128,000 lbs.
Total weight.....	169,000 lbs.
Diameter of cylinders.....	28 in. and 33 in.
Stroke of pistons.....	26 in.
Diameter of drivers.....	63 in.
Type of boiler—Radial stayed extended taper course.	
Working steam pressure.....	210 lbs.
Heating surface—total.....	2,421 sq. ft.
Tubes—number.....	328
“ material.....	Swedish steel
“ outside diameter.....	2 in.
“ length.....	13 ft. 2½ in.
Firebox—length.....	9 ft. 6 in.
“ width.....	3 ft. 5½ in.
“ material.....	Krupp steel
Grate area.....	33.2 sq. ft.
Tank capacity for water.....	5,000 imp. gall.
Coal capacity.....	10 tons
Tender frame.....	10 in. steel channels

The special equipment includes Krupp axles, driving, truck and tender wheels, steel crank pins, connecting rods and side rods, nickel steel piston rods and cast steel piston heads, and Simplex brake beams.



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a free steaming boiler has been obtained where such a design has been used is an important one, and will have its effect on the future designs of draft appliances for large modern boilers. Mr. Muhlfield's design is reproduced on pg. 137.

The Trans-Canada Railway.

A deputation from Québec, consisting of J. G. Scott, General Manager of the Québec and Lake St. John and the Great Northern railways, L. Evans, O. E. Talbot, M.P.; Lt.-Col. B. A. Scott, Hon. C. Langelier and Lt.-Col. Roy, with whom was G. T. Blackstock, K.C., of Toronto, addressed the council of the Toronto Board of Trade, on Mar. 10 in the interest of the Trans-Canada Ry. project.

J. G. Scott, who was the principal speaker, said:—Making use of the Lake St. John Ry., which is constructed and will form the first link in the project, the mileage will be as follows: Québec to Port Simpson, 2,830 miles; Chicoutimi to Port Simpson, 2,700 miles; Québec to Vancouver by C.P.R., 3,078 miles; Québec to Yokohama via Vancouver C.P.R., 7,367 miles; Chicoutimi to Yokohama via Port Simpson, 6,645 miles, so that in point of distance the Trans-Canada will be about 370 miles shorter from tidewater to tidewater than any other transcontinental road, and about 700 miles shorter to Japan than the C.P.R., or 2,200 miles shorter from Liverpool to Japan than the New York-San Francisco route.

The summit between Lake St. John and the James Bay district is 1,200 ft., and the highest point reached in crossing the Rockies will be 2,850 ft. The enormous advantage of this low summit will be appreciated by comparing it with 5,200 ft. on the C.P.R., 5,800 on the Northern Pacific, and 8,200 on the Union Pacific. The country is so uniformly level that the elevation at Waswanipi, on the Nottaway river, south-east of James Bay, is 680 ft. above tide, and at Norway House on Lake Winnipeg, 900 miles further west, it is 710 ft. From the information so far obtained, our Chief Engineer is of opinion that we shall get a line having no grade exceeding 1% ascending west, and no grade exceeding six-tenths of 1% ascending east, at least on this side of the Rockies. The advantages of such grades and low summits in the cheapening of freight rates will be readily appreciated.

By a branch line from Winnipeg to the Albany river, southern Manitoba will get the shortest outlet to the sea, the distance from Winnipeg to Chicoutimi by such a line being less than 1,300 miles, and to Québec 1,410 miles, as against 1,572 by the C.P.R. A short branch from Waswanipi to Nottaway will give Manitoba, Ontario and Québec access to a good port on James Bay, a very important matter as the west coast of James Bay is very shallow. A short branch from the Saskatchewan river, east of Prince Albert, to the north end of Lake Winnipeg, will not only give the Canadian Northern Ry. the shortest outlet to the sea by several hundred miles, but it will also give it the shorter line from the Saskatchewan to Toronto—using part of the Ontario Government's Temiskaming and Northern Ontario Ry.—than if they built another line around the north of Lake Superior.

It has been contended that the location of the Trans-Canada is too far north. A glance at the map before you will prove that at no point will this road go north of the line of possible wheat cultivation, as established by the reports of the Geological Survey. In fact, in the Peace and Mackenzie river districts, wheat comes to maturity in latitude 61, about 300 miles farther north than our proposed line. The records of the Meteorological Service prove that the average summer temperature at every point between Québec and Port Simpson is warmer than at Rimouski

on the lower St. Lawrence, and yet the county of Rimouski grows more wheat than any other county in the Province of Québec. The same official reports show that the average snowfall in the James Bay territory is less than half that of Montreal, and we have had a remarkable proof of the correctness of this statement during the present winter by the fact that C. E. Perry, in charge of one of our engineering parties at the north end of Lake Winnipeg, reported that they had not enough snow for snowshoeing, and were able to do their work without using them. The soil of the whole of the country from Lake St. John to the Rockies is fit for cultivation. The Lake St. John district grows magnificent crops of wheat of a similar quality to that of Manitoba. In the wooded sections the forests of spruce are very valuable, and the rivers abound in magnificent water powers to turn them into pulp and paper.

Bishop Bompas, of the Anglican diocese of Selkirk, who has lived in those territories all his life, writes us that he approves of the location of the Trans-Canada from one end to the other, except that he would have liked to see the line a little farther north for the better development of the country. Sir Sandford Fleming approves of this location and says: "I regard the shortest line obtainable between the tidewater of the two oceans as quite long enough," and adds: "Regarded from a Canadian standpoint, I cannot conceive any public undertaking which would better meet the wants of the Dominion throughout its whole extent."

Sir William Van Horne says in a press interview: "The Trans-Canada road has started with better prospects than the C.P.R. had once. We would hail with delight a parallel route from the Atlantic to the Pacific to help us to develop the country. There is enough of it up there for us all."

So that the location of the Trans-Canada is not too far north.

But this enterprise has special advantages for Ontario. Not only will it give Toronto a short route to the Saskatchewan and Peace river countries, but it will develop by an east and west line the best part of New Ontario from the Québec boundary line to the crossing of the Albany river, a distance of 350 to 400 miles. It has been contended that the Trans-Canada will have many miles to build, and that what is wanted is immediate relief for the freight blockade in the West, but our intention is to begin construction from the Ontario Government railway westward as soon as that road reaches the point of intersection; so that there is no reason why the Trans-Canada cannot reach the Northwest as soon as any other projected road. And by this mode of construction Toronto will be one of the principal bases of supplies during the building of the road, and after its completion will be the nearest city to the interior, an important point in connection with the sale of manufactures, agricultural implements, etc.

The Trans-Canada will be splendidly situated as regards seaports. On the Atlantic side it will have the choice of Québec, with its deep-water docks and splendid accommodation for the largest vessels that can be built; at Chicoutimi, with the safe deep-water navigation of the Saguenay, the closest shipping-point to the Northwest wheat-fields; at Montreal by a branch line which the charter provides for; and in winter, the new bridge, now being built across the St. Lawrence at Québec, will give the shortest possible line to Halifax and St. John, which very justly claim the winter export trade of the vast Northwest, which the Maritime provinces have paid their full share to pay for and to develop. The Trans-Canada is the only road which can safely be depended upon to give the winter trade to Halifax and St. John without danger of diversion to U.S. ports. And it is not unnatural that the disappointments of the past

should have made these ports very jealous of Portland. On James Bay there is a good port, with some dredging of a bar, at the mouth of the Nottaway, which will give access to 4,000 miles of coast-line of that great inland sea, with its vast undeveloped resources in fisheries and minerals. On the Pacific coast, Port Simpson is said to be the finest harbor north of San Francisco.

The Trans-Canada will not only help to remove the freight congestion in the Northwest, but its level gradients will very materially reduce freight rates on grain, a relief for which the farmers of the Northwest have long been crying out. A reduction of 3c. a bushel on the present freight rates would save them enough money annually to pay the interest on the whole cost of the road, and we hope to be able to reduce rates much more than that.

A most important consideration in connection with this road is its military advantage. Situated from 300 to 400 miles from the frontier at all points, protected, if need be, by fleets at Halifax, at Québec, at Chicoutimi, at Nottaway and at Port Simpson, the Trans-Canada Ry. would be simply impregnable. We Canadians are a peace-loving people. We want to give all our time and all our energies to the development of our country, the finest in the world. We want to live at peace with our neighbors and with the world. We are averse to militarism, and although we enjoy the protection of the British army and navy, paid for by heavy taxes on the British ratepayer, there seems to be a sentiment in the country against contributing anything towards the cost of the army and the navy. At the same time we know that the exposed condition of our frontier, with our only rail connection with the west running close along the border for hundreds of miles, and sometimes across it, is a source of weakness to the Empire, and perhaps the cause of many weak bargains with the U.S. which we seem at times to resent. We know, or we should know, that a border raid could at any time destroy our railway communication at Winnipeg and at many points further east, and not only our railway, but also our telegraphic communication, and thus completely isolate the west from the east. Surely if we are going to build another transcontinental line it would be wise to locate it in such a way as to guard against this danger. It is a cowardly people that will not take any precaution for its own safety in case of trouble. If we will not contribute to the army and the navy what better contribution could we offer to the Mother Country than a line of railway which will cause Canada to cease to be the source of weakness and anxiety which she now is to the Imperial Government?

We have four parties of engineers in the field, one working from Roberval towards James Bay, another from Norway House eastward, one from Norway House westward, and a fourth laying out the terminal at Port Simpson, and working from there towards the Peace river pass. We do not pretend to be very strong capitalists, but I may say, without boasting, that the directors of our company, as a whole, are as strong financially as was the directorate of the C.P.R. during the first years of the existence of that company. All we ask from the Toronto Board of Trade is a fair and impartial consideration of this important question from a Canadian and patriotic point of view. I may say that we presented our case to the boards of trade of Halifax and St. John. We did not ask any expression of opinion from them. We left the question entirely in their hands and to their good judgment, and I am happy to say that shortly afterwards both boards, without solicitation on our part, passed resolutions completely endorsing the Trans-Canada project and recommending it to the Government.

RAILWAY FINANCE, MEETINGS, ETC.

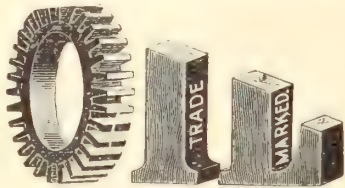
Algoma Central Ry. and Steamship Lines.—The directors of the Consolidated Lake Superior Co. have given out a statement showing that \$27,790,200 have been expended in connection with the company's undertakings. Of this \$9,482,200 appear under the head of "transportation interests."

The mortgage deed to the Central Trust Co. of New York, securing the issue of bonds of the Co., which was approved at a recent meeting of shareholders, was deposited with the Secretary of State at Ottawa, Mar. 10. The bonds on the railway are for \$6,750,000, and on the steamships \$725,000. (Mar., pg. 104.)

Bale des Chaleurs Ry.—The retiring directors were re-elected at the annual meeting in Montreal, Mar. 17, and a press report quotes one of the directors as stating: "The business was entirely informal, and the project may be considered dead for the present."

Bracebridge and Trading Lake Ry.—The annual meeting was held at Bracebridge, Ont., Mar. 9. The officers for the current year are: President, F. P. Warne; Vice-President, W. W. Kinsey; Managing Director, W. H. Brown; other directors: P. A. Smith, G. N. Wickins, P. Hutchison, C. J. C. Crump, S. Bridgeland, M. L. A.; J. W. Gilpin; Secretary-Treasurer: R. P. Perry, Bracebridge, Ont.; Solicitor, T. Johnson.

Brockville, Westport and Sault Ste. Marie Ry.—The reorganization syndicate consists of 25 members, the following being the officers: Chairman, John Gerken; Treasurer, H. W. Gennerick; counsel, Hohn and Smith. The temporary offices of the syndicate are 90 World Building, New York. The syndicate paid the balance of the purchase money into court Mar. 20. The cash paid was \$3,374.08, the balance of the \$154,500 being in securities. The syndicate will operate the line after April 1st. L. S. Lewis, of Newboro, Ont., has entered an action in the Ontario courts asking for an order directing the Philadelphia Investment Co. to complete the construction of the line, for an injunction restraining them from proceeding with the



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MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1901, gives the following statistics for the year:

CROPS.

ACRES.	AVERAGE YIELD.	TOTAL.
Wheat.....2,011,835	25.1 bus.	50,502,085 bus.
Oats.....689,951	40.3 "	27,796,588 "
Barley.....191,009	34.2 "	6,536,155 "
Potatoes...24,429	196. "	4,797,433 "

STOCK.

Number of stock in the Province, July 1, 1901:
Horses.....142,080 Sheep.....22,960
Cattle.....263,168 Pigs.....94,680
Value of Dairy Products.....\$926,314

18,375 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1899—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,600,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

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GEORGE H. DANIELS,
General Passenger Agent, Grand Central Station,
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General Agent, BUFFALO, N.Y.



FARMING IN THE SOUTH.

The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free, Circulars as they are published from month to month.

The Local Agent is asked to note Cheap Rates to all the North West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it in. December folder is a good one. Get it!

G. B. WYLLIE,

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GOD SAVE THE KING

sale of the line to the reorganization syndicate, and to set aside the incomplete sale. Mr. Lewis is a bondholder, and also a judgment creditor.

The judgment creditors and outside bondholders allege that their interests are being sacrificed by the Philadelphia Investment Co., and that the sale to the reorganization syndicate should be annulled. The defendants in the action are: the Philadelphia Investment Co., the B., W. and S.S.M. Ry. Co. and the members of the re-organization syndicate. The allegation of the plaintiffs is that the Investment Co. is not an ordinary bondholder, but is practically the successor to R. G. Hervey, the contractor for the line. The B., W. and S.S. M. Ry. Co. was incorporated by the Ontario Legislature in 1884, and in April, 1886, a contract was entered into with the Dominion Government by which a subsidy of \$128,000 was to be paid for the construction of 40 miles of railway from Brockville towards Westport. R. G. Hervey engaged to construct the line, and, according to the judgment creditors, was, in fact, the company as well as the contractor. He proceeded with the work, obtained subsidies of \$3,200 a mile from the Dominion Government to construct the line from Newboro' for 20 miles towards Palmer's Rapids, and \$116,000 of aid from the Municipalities. The financing of the project was done by pledging the subsidies as security for rails, etc., with certain of the judgment creditors, and by pledging the shares and bonds of the Co. with the Philadelphia Investment Co. Later on, it is alleged that the Investment Co. took over the interests of R. G. Hervey as contractor, shareholder and bondholder. The line has been constructed from Brockville to Westport, about 45 miles, and the Dominion Government has paid \$105,200, equal to \$3,200 a mile on 32.875 miles. Upon their showing of the facts the judgment creditors, in their statement of claim, ask the court for a declaration that the Investment Co. stands in the same position as did R. G. Hervey, the original contractor, with the Ry. Co. for the construction of the railway, and is liable to complete the line; that the Investment Co. be directed to proceed with the construction and completion of the railway, and that, in default of its so doing, its claim as bondholder be postponed to that of all other creditors, and that the bonds be charged with a lien for the payment of debts incurred in the construction and equipment of the line; that the Investment Co. is not entitled to interest on the bonds until the line is completed; for an injunction restraining the Investment Co. from proceeding with the sale; and for an order that the present Receiver be discharged and a new one appointed; and for an order setting aside the purchase of the line on Jan. 20 by the re-organization syndicate. (Mar., pg. 105.)

British Columbia Electric Ry. Co.—Earnings and expenses for Jan.:—

	1902.	1903.	Increase or Decrease.
GROSS EARNINGS.			
Railway—Vancouver division	\$9,176	\$12,028	\$2,852+
Victoria	8,374	9,023	649+
Westminster	7,301	8,558	1,257+
Lighting—Vancouver division	16,192	20,751	4,559+
Victoria	9,016	10,366	1,350+
	50,059	60,726	10,667+
Less working expenses	31,976	35,149	3,173+
	18,083	25,577	7,494+
Renewal funds	3,458	4,222	764+
Net income	14,625	21,355	6,730+
Gross earnings, July 1, 1902, to Jan. 31, 1903	\$354,803	403,237	48,434+
Net earnings, July 1 to Jan. 31, 1903	\$126,573	\$141,063	\$14,490+

Calgary and Edmonton Ry.—Net earnings for Jan. \$20,678.51, against \$30,368.34 for Jan., 1902.

Canadian Northern Ry.—Gross earnings:—

	1902-03.	1901-02.	Increase.
July.....	\$132,300	\$ 87,200	\$45,100
Aug.....	130,900	97,000	33,900
Sept.....	209,300	103,300	106,000
Oct.....	190,200	120,610	69,590
Nov.....	259,800	119,142	140,658
Dec.....	202,300	129,918	72,382
Jan.....	154,700	102,067	52,633
	\$1,279,500	\$759,237	\$520,263

Working expenses for Jan., \$103,090; net earnings \$51,610, against \$36,737 for Jan., 1902; net earnings for seven months to Jan. 31, \$450,366, against \$311,127 for same period, 1901-02.

It is said that the principal purpose of President W. Mackenzie's visit to London, Eng., was to raise money by the sale of bonds to finance construction for this year, that large quantities of the Co.'s bonds have recently been shipped from Toronto to London, and that they were sent to fill orders secured by Mr. Mackenzie. It is believed that all the stock of the C.N.R. is closely held in the hands of Mackenzie, Mann & Co., and that the sale of bonds form their main source outside of present earnings to obtain money with which to carry through the construction. The Canadian Bank of Commerce, which is sometimes said to be behind the Canadian Northern, occupies no other position than that of ordinary bankers.

(See also Great Northern Ry. of Canada.)

The Cape Breton Electric Co., in addition to owning the electric railway in Sydney, is constructing an electric railway from North Sydney to Sydney Mines, and owns jointly with the Dominion Coal Co. the Sydney and Glace Bay Ry., which it operates; it also owns the ferry service in Sydney harbor, and the electric light works in Sydney. The Co. has issued \$850,000, out of an authorized issue of \$1,500,000 of first mortgage, 30 year, 5% gold bonds, due 1932; \$234,000 of 6% preferred stock (redeemable at 120) out of an authorized issue of \$250,000, and \$1,000,000 of common stock. The bond issue is callable as a whole at 105 and interest, on any interest day, and a sinking fund of \$1% a year on outstanding bonds is accumulating. The gross earnings for the ferry department for the year ended Dec. 31, 1902, were \$33,219.49, and of the electric light department \$46,125.11; net earnings: ferry, \$9,549.50; electric light, \$21,276.53. The railways, the franchises of which expire in 1931 and 1932, have been put in operation too recently to permit of any earnings being published. The annual meeting is fixed for the first Tuesday in May. Stone & Webster, Boston, Mass., who are interested in a large number of electric railway and light projects in different parts of the United States, are General Managers.

Central Ontario Ry.—The action of the Toronto General Trusts Corporation against the C.O. Ry. Co., which was directed to be entered by order of the court in order that conflicting interests may be unified so that a clear title can be given on a sale, came before the non-jury assizes at Toronto, Mar. 15, and has not been decided.

Chateaugay and Northern Ry.—Application is being made at the current session of the Dominion Parliament for an act confirming the issue of debentures, and the mortgage given to secure the same. The debentures were issued for the purpose of enabling the Co. to proceed with the construction of its line from Montreal to Joliette, Que., and the bridge at Bout de l'Île.

Dominion Atlantic Ry.—Gross earnings for Jan. \$48,500, against \$61,051 for Jan., 1902.

Great Northern Ry. of Canada.—The negotiations respecting the purchase of stock in this company by Mackenzie, Mann & Co., have been completed and the board of direct-

ors has been re-organized. By the purchase Mackenzie, Mann & Co. are placed in control, and will at once look into the entire service with a view of making such improvements as may be necessary to meet the requirements of their traffic. The reorganized board of directors consists of: Hon. P. Garneau, Hon. S. N. Parent, V. Chateauvert, J. G. Scott, of Quebec; Colonel McNaught, of New York; H. H. Melville, of Boston, Mass.; J. T. Ross, Montreal; D. B. Hanna, Z. A. Lash, K.C., W. H. Moore, F. E. Annesley, and A. J. Mitchell, of Toronto. D. B. Hanna is Third Vice-President Canadian Northern Ry., and the other Toronto directors are in Mackenzie, Mann & Co.'s offices. The directors who have retired are Hon. J. Tessier, E. E. Ling, of Quebec; W. L. Bull, of New York; H. E. Mitchell, of Philadelphia, Pa.; and J. Joyce, of Boston, Mass. Hon. P. Garneau has been elected President, Col. J. McNaught 1st Vice-President, and H. H. Melville 2nd Vice-President. (Mar., pg. 90.)

It is said that a holding company, the Great Northern of Canada Consolidation Securities Co. has been formed with a capital of \$8,000,000 to take over the securities of the Great Northern Ry. Co. of Canada, the Chateaugay & Northern Ry. Co., the Montford and Gatineau Colonization Ry. Co., and the Montreal Terminal Ry. Co., and that the control of the new company is held by Mackenzie, Mann & Co., J. McNaught and H. H. Melville. It is also said that a contract has been entered into between the Canadian Northern and the Great Northern railways by which they interchange all export and import traffic possible.

Great Northern Ry., U.S.—In taking over the Nelson and Fort Sheppard Ry. the G.N.R. came into possession of the land grant of 600,000 acres voted by the B.C. Legislature to the Co. in 1893, free of taxes for 10 years. Not more than 50,000 acres are reported to have been sold, leaving 550,000 acres still to be disposed of. Local press reports state that the G.N.R. is considering the question of allowing these lands to revert to the Government by not paying taxes thereon. The lands consist of mountainous stretches, remote from settled camps, which are most unlikely to be acquired by ranchers or lumbermen, and which are hardly worth the amounts for which they may be taxed.

Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$102.75+
Feb.....	9,321.75	8,498.39	823.36+
	\$20,189.08	\$19,262.97	\$926.11+

Kettle River Valley Ry.—Application will be made at the current session of the Dominion Parliament for an act authorizing amalgamation with any other railway company, or to acquire the stock or bonds of any other company, or to guarantee its bonds. The K.V. Ry. Co. is the Dominion incorporation covering the Kettle Valley Lines from Grand Forks, B.C., to Republic, Wash., and the projected extensions of the same.

Lake Superior Co.—Application will be made at the current session of the Ontario Legislature for an act consolidating under the above title the following Sault Ste. Marie companies: International Transit Co., Algoma Dry Dock Co., Lake Superior Power Co., Sault Ste. Marie Pulp and Paper Co., Tagona Water and Light Co., Algoma Steel Co., Algoma Tube Co., Algoma Commercial Co. and the Canadian Electrical Chemical Co.

The Levis County Ry. Co. is applying at the current session of the Quebec Legislature for an act ratifying the issue of debentures, when made, and the trust deed passed on the subject.

Manitoulin and North Shore Ry.—The deed of mortgage to the Central Trust Co. of New York, securing the issue of \$8,820,000 of bonds, authorized by the shareholders Feb. 10, has been deposited with the Secretary of State at Ottawa. (Mar., pg. 107.)

Montreal Street Ry.—Earnings and expenses for Feb.

	1903.	1902.	Increase.
Passenger earnings	\$139,065.47	\$132,159.00	\$6,906.47
Miscellaneous earnings	2,734.92	1,485.69	1,249.23
Total earnings	141,800.39	133,644.69	8,155.70
Operating expenses	108,803.02	103,915.30	4,887.72
Net earnings	32,997.37	29,729.39	3,267.98
Fixed charges	15,715.03	14,880.68	834.35
Surplus	17,282.34	14,848.71	2,433.63
Expenses % of car earnings	78.23	78.63	

Oct. 1, 1902, to Feb. 28, 1903.

	1903.	1902.	Increase.
Passenger earnings	\$831,256.48	\$759,986.46	\$72,270.02
Miscellaneous earnings	14,312.33	7,857.17	6,455.16
Total earnings	845,568.81	767,843.63	77,725.18
Operating expenses	533,378.85	491,761.23	41,617.62
Net earnings	312,200.96	276,082.40	36,118.56
Fixed charges	81,796.18	74,210.88	7,585.30

Surplus \$230,503.78 \$201,871.52 \$28,632.26
Expenses % of car earnings 64.17 64.70
Interest on M.P. & I. Ry. Co.'s bonds owned by this Co. not included.

The New Brunswick Southern Ry., under which title the Shore Line Ry. from St. John to St. Stephen, N.B., is now operated, has elected the following: President, Col. H. H. McLean; other directors: Major M. B. Edwards and M. D. Sweeney.

Pere Marquette Rd.—Two companies have filed articles of incorporation at Trenton, N.J., which it is understood have a connection with the Pere Marquette plans for extension and development. One of these companies is the Detroit Equipment Co., to construct locomotives and railway rolling stock; the other is the Marquette Construction Co., to construct railways, the capital of each being fixed at \$10,000. An officer of the Pere Marquette is reported as saying that he would not be surprised if some of those connected

with the line had formed the companies named for furnishing the additional equipment required, and constructing the extensions projected. (Mar., pg. 107.)

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for Jan., \$1,557.50, against \$4,783.67 for Jan., 1902, making for the two months ended Jan 31, \$2,832.25, against \$11,351.10 for same period 1901-02.

Quebec Central Ry.—Gross earnings for Feb., \$38,250.09; working expenses, \$34,844.02; net earnings, \$3,406.07, against \$40,019.02 gross, and \$7,662.66 net, for Feb., 1902. Net earnings for two months to Feb. 28, 1903, \$6,502.19, against \$13,461.46 for same period 1902.

Application has been made to the London Stock Exchange for the listing of a further issue of £115,150 of 3% redeemable second debenture stock, and new income bonds of £50 each.

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F. X. ST. JACQUES - - - Proprietor

Quebec Southern Ry.—The section of the line from Sorel to Noyan Jct., closed since Jan. 20, had not been re-opened Mar. 20, but H. A. Hodge, President, said he hoped to be able to arrange for its re-opening very shortly. F. D. White, of Burlington, Vt., Secretary of the South Shore Ry., has brought an action against the Q.S. Ry. to recover \$49,000 in connection with the purchase of the former line. Press reports state that a syndicate of New Yorkers is being organized to take over the Q.S. Ry. as well as the South Shore Ry., in the interests of the Rutland Rd.

The Minister of Public Works for Quebec has received a formal petition asking the Quebec courts to appoint a sequestator for the United Counties, the Quebec Southern, and Richelieu Valley railways, amalgamated under the title of the Quebec Southern Ry. The petition was set down for argument April 2. (Mar., pg. 107.)

The St. Mary's River Ry. Co. will apply at the current session of the Dominion Parliament for authority to move its head office to Montreal.

Temiscouata Ry.—Net earnings for Dec., 1902, \$912.

White Pass and Yukon Ry.—Gross earnings from July 1, 1902, to Feb. 14, 1903, \$1,167,978.

Winnipeg Electric Street Ry.—Gross earnings for Jan. \$44,515, against \$32,060 for Jan., 1902.

The Shipping Federation of Canada.

This is the title under which representatives of the various shipping firms of Montreal are seeking incorporation at the current session of the Dominion Parliament. The names appended to the application for incorporation are: H. A. Allan, representing H. and A. Allan; J. R. Dinning, representing Furness, Withy & Co. (Ltd.); J. Thom, representing the Hamburg-American Packet Co.; Wm. I. Gear, representing the Robert Reford Co. (Ltd.); F. A. Routh, representing F. A. Routh & Co.; D. W. Campbell, representing Elder, Dempster & Co.; J. G. Brock, representing J. G. Brock & Co.; C. McLean, representing McLean, Kennedy & Co., and J. Torrance, representing the Dominion and the Leyland lines. The firms mentioned include practically the whole of the firms engaged in the trans-Atlantic steamship business in Canada. As set out in the notice of application, the objects of the federation are to amalgamate and federate shipowners, steamship and ship managers and agents, whether individuals or corporations, and such other persons or corporations as may be interested in the shipping trade of Canada; to act jointly and in co-operation with any other association to consider all questions affecting the shipping trade of Canada, or other trades allied therewith, and to take such steps as may be deemed advisable to protect all such interests.

For many years past those interested in the shipping trade have acted together in an informal manner, and without organization, as regards pilotage, channel, lighting, harbor accommodation, harbor dues, cargo, and a multitude of other questions of interest to the trade as a whole. This method of procedure has been found to have its inconveniences, in view of the fact that there was no individual who could officially speak for the whole, and that it was difficult sometimes to get the trade to act as a unit. The purpose of the incorporation is to overcome these inconveniences and to create a body similar in purposes and formation to the Canadian Manufacturers' Association. We are informed there is nothing in the nature of a combine in the proposed federation, and that the or-

ganization will in no way attempt to affect or influence rates nor interfere in any way with the autonomy of the several firms and companies.

Talks to Ticket Agents.

By F. B. Sankey, Pittsburg, Pa.

LETTER WRITING.—In writing letters to your general office on any subject, be brief. Write all you have to say, but put it in as few words as possible, so that the person with whom you are corresponding can see at a glance the facts in the case. Remember the general passenger agent of a large line receives hundreds of letters daily, not only from employees, but from the public in general. It is no easy matter to reply to all such letters; hence the importance of brevity and conciseness. State facts and use the official company letter head. Be charitably disposed toward your general passenger agent. By this I mean, do not feel chagrined because the answer to your communication is not always as lengthy as you may anticipate. Your general passenger agent, as explained, has too many letters to write each day, and has not the time to expatiate, as it were, when a few words to the point will answer the questions you have raised. Guard against repetition in your letters. So many of us repeat the same facts throughout a letter, which is entirely unnecessary. In writing letters we should have regard for precision—that is to say exactly what we mean; to state our thoughts plainly; to avoid ambiguity. We should have regard for propriety, or the use of words in their proper sense. The rules for unity should govern us in our composition. The letter-writer whose diction is good is bound to stand out pre-eminent among his fellows in the eyes of his superior officers, and quite frequently is the man sought for to fill more lucrative positions. Never let a letter go unanswered. If a person thinks enough of your opinion on any particular subject, to write you a letter asking your advice, it is as little as you can do to reply promptly and courteously.

ASK FOR ASSISTANCE WHEN NECESSARY.—An agent should always ask for assistance when in need of it. He should first use every means within his power to handle the business himself. He should not ask for help from any source whatever until he has exhausted his own stock of knowledge. After doing this, if he feels he is not capable of handling the transaction, or if he is in doubt as to the information he has given the passenger, or the correctness of his decision in the matter, then, by all means, he should ask for assistance or advice on the subject in question. Quite frequently it occurs, an agent fails to ask for advice pertaining to passenger business, fearing he will show his ignorance on the subject, or that he will be criticised by his superior officers for not knowing better. Rather than write a letter requesting advice, he goes ahead blindly, makes a mistake or loses the business by default. Always ask for assistance when in doubt. Mistakes frequently cost the railroad company money, and oftentimes could be avoided by asking questions. Sometimes an agent feels if he asks for assistance, the travelling passenger agent will be sent out, and if the business is secured, the travelling passenger agent will get all the credit and the local agent none. The above surmises are all wrong. Every agent will be credited for the business done at his station by his superior officers, regardless of who assisted him. The travelling passenger agent gets credit for the business done in his territory as a whole. The general office is too busy with more important questions to keep tabs on each and every movement of its travelling representatives, and scarcely ever knows the individual cases

handled by the travelling men. It judges the travelling man's work by the showing made in his territory. Therefore, as the travelling man is on the road to assist the agents, no agent should hesitate to call upon him for help on account of any of the reasons mentioned, when his services are necessary.

Ontario and the Great Lakes.

The str. *Urania* and *Imperial*, which were operated in 1902 between Cleveland, Ohio, and Port Stanley, Ont., and Cleveland and Rondeau, by the Lake Erie Navigation Co., may be sold this spring.

The Montreal Transportation Co. has closed a contract for the construction at Collingwood, Ont., of a steel screw, lake and river tug, having the following dimensions: length, 117 ft. over all, 107 ft. keel; beam, 23 ft.; moulded depth, 13 ft. 9 in. She will be fitted with triple expansion engines, with cylinders, 15, 25½ and 43 in. diameter, by 36 in. stroke, supplied with steam at 185 lbs. pressure from two Scotch marine boilers, 11 ft. diameter by 11 ft. 6 in. long.

Waldie & Wright are having built by the Bertram Engine Works Co., Toronto, a full Welland canal size, steel, bulk cargo steamer, a duplicate of the *Iroquois*, built for the St. Lawrence and Chicago Steam Navigation Co. Her dimensions are: length, over all, 262 ft. 2 in.; breadth, 43 ft.; moulded depth, 25 ft. 6 in.; and she is to be fitted with a vertical triple expansion engine 17, 28 and 46 in. cylinder, by 36 in. stroke, and two Scotch boilers, each 11 ft. 6 in. by 12 ft., built for a working pressure of 176 lbs. of steam.

The C.P.R. and the Northern Navigation Co. have entered into an arrangement by which there will be a daily steamship service on the upper lakes to Port Arthur and Fort William this season. Hitherto the C.P.R. service has been three times a week from Owen Sound, and the Northern Navigation Co.'s service has been operated without special reference to railway connections. Under the new arrangement the Northern Navigation Co. will operate on its North West Transportation line four steamers from Sarnia and other Lake Huron ports to the head of Lake Superior, the sailing being alternately with the C.P.R. sailings from Owen Sound and Fort William, thus maintaining a daily service, Sundays excepted. The four steamers of the Northern Navigation Co. which will be on the service will be the *Huronic*, *Majestic*, *United Empire* and *Monarch*.

The steel hull for the first of the two side-wheel steamers for the Upper Ottawa Improvement Co., has been put together at Timiskaming, and the hull for the second steamer has been shipped from Toronto for erection on the lake. The hulls were built in sections and set up in the yard of the builders—the Bertram Engine Works Co., Toronto—all parts properly marked, then taken down and shipped on cars for Timiskaming. They have the following dimensions: (1) length over all, 146 ft. 6 in.; breadth, 26 ft.; depth 8 ft. 5 in.; fitted with inclined compound engines 24 and 48 in. cylinders, by 60 in. stroke and two locomotive type boilers, 5 ft. 4 in. by 23 ft. 4½ in.; (2) length over all, 140 ft. 6 in.; keel, 133 ft.; breadth, 24 ft.; depth, 8 ft. 3 in.; fitted with inclined compound engines 20 and 38 in. cylinders, by 54 inch stroke, and two locomotive type boilers, 4 ft. 10 in. by 21 ft. These tugs have been built for the Co.'s logging trade on Lake Timiskaming. Hitherto the Co. has had a contract with the Lumsden Co. to do the towing on the lake, but this having expired, the Co. will now do its own towing. The tugs are to be on the lake for the opening of navigation, and are being put together on the lake. The Up-

per Ottawa Improvement Co. is also having built by the Bertram Engine Works Co., a steel tugboat, 66 ft. long, 12 ft. 6 in. beam, to be fitted with fore and aft compound engine and Scotch boiler. The tug will be shipped on cars completed, with machinery installed, early in the summer.

The annual meeting of the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. was held in Toronto Mar. 19. It was reported that the business for 1902 was very satisfactory. The passenger business was more than double that of 1901; the general freight business, which includes the carrying of large quantities of bark, showed an increase, but the towing of logs showed a falling off owing to the early spring of 1901. The net earnings are reported to have been 9% on the capital employed. It was decided not to declare a dividend, but to utilize the amount in increasing the Co.'s facilities. It is anticipated that there will be a considerable increase in the log-towing business during the coming season, as in addition to the logs held up in the bush in 1901, there has been a heavy cut last winter, which will be got out this season. The Co. has also closed a contract for carrying 7,000 tons of bark during the season. The following officers and directors were elected: President, G. T. Marsh, Huntsville; Vice-President, W. H. Patton, Toronto; Manager and Secretary-Treasurer, W. Duperow, Huntsville; other directors: W. F. Cockshutt, W. R. Turnbull, Brantford; E. J. B. Duncan, Toronto. The Co. is building at the portage of the Lake of Bays a steamer 65 ft. long, 13 ft. beam, and 5 ft. depth of hold, fitted with compound engines and having accommodation for about 200 people, to be completed by July 1. The str. Maple Leaf is being lengthened from 37 to 52 ft. for the coming season's trade, and arrangements are being made for the construction of a steamer from 100 to 115 ft. long and 23 ft. beam, for 1904.

The Railway Department of the Y.M.C.A. will hold its 11th annual convention at Topeka, Kan., from April 30 to May 3. Each association is entitled to send two delegates, and unorganized centers may also send two railwaymen as representatives.

The C.P.R. transcontinental service will be augmented for the summer by the Imperial Limited, the bi-weekly express service inaugurated in 1902, which made the trip in 97 hours. It is understood that the schedule will be practically the same as last year.

THE GRAND TRUNK RAILWAY COMPANY OF CANADA

NOTICE is hereby given that the Ordinary General Half-Yearly Meeting of the Grand Trunk Railway Company of Canada will be held at the City Terminus Hotel, Cannon Street, London, E.C., on Thursday, the 16th day of April, 1903, at Two o'clock, p.m., precisely, for the purpose of receiving a Report from the Directors, for the election of Directors and Auditors, and for the transaction of other business of the Company.

Notice is also given that the Transfer Books of the Company, in London and Canada, will be closed from Monday, the 16th day of March, to the day of Meeting, both days inclusive.

By order,

C. RIVERS WILSON, President.

H. H. NORMAN, Secretary.

Dashwood House,
New Broad St., London, E.C.
1st March, 1903.

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PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Steam Shovels	
James Cooper.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
Steel	
James Cooper.....	Montreal.
B. J. Coghlin & Co.....	Montreal.
Wm. Jessop & Sons.....	Sheffield, Eng.
Rice Lewis & Son.....	Toronto.
Steel Buildings	
Dominion Bridge Co.....	Montreal.
Steel Plate	
Jas. W. Pyke & Co.....	Montreal.
Steel Tires	
B. J. Coghlin & Co.....	Montreal.
Latrobe Steel Co.....	Philadelphia, Pa.
Jas. W. Pyke & Co.....	Montreal.
Structural Metal Work	
Dominion Bridge Co.....	Montreal.
Jas. W. Pyke & Co.....	Montreal.
Switches	
Canada Switch and Spring Co.....	Montreal.
Switch Lamps	
The Hiram L. Piper Co.....	Montreal.
The N. L. Piper Railway Supply Co.....	Toronto.
Switch Ropes	
The B. Greening Co.....	Hamilton, Ont.
Switch Targets	
Acton Burrows Co.....	Toronto.
Tanks and Tank Fixtures	
Ontario Wind Engine and Pump Co.....	Toronto.
Telegraph and Telephone Office Signs	
Acton Burrows Co.....	Toronto.
Tie Plates	
B. J. Coghlin & Co.....	Montreal.
Tobacco and Cigars	
The Hudson's Bay Company.....	
Toilet Paper	
The Hudson's Bay Company.....	
Tools	
Rice Lewis & Son.....	Toronto.
Track Jacks	
James Cooper.....	Montreal.
Duff Manufacturing Co.....	Allegheny, Pa.
W. H. C. Mussen & Co.....	Montreal.
A. O. Norton.....	Coaticook, Que.
Track Tools	
Canada Switch and Spring Co.....	Montreal.
James Cooper.....	Montreal.
Rice Lewis & Son.....	Toronto.
W. H. C. Mussen & Co.....	Montreal.
Tramway Equipment	
James Cooper.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
J. J. Gartshore.....	Toronto.
Trucks (Electric Car)	
Baldwin Locomotive Works.....	Philadelphia, Pa.
Canada Switch and Spring Co.....	Montreal.
Trucks (Warehouse and Express)	
Rice Lewis & Son.....	Toronto.
Turntables	
Dominion Bridge Co.....	Montreal.
Varnishes	
McCaskill, Dougall & Co.....	Montreal.
Vessels	
Poison Iron Works.....	Toronto.
Waste	
B. J. Coghlin & Co.....	Montreal.
Rice Lewis & Son.....	Toronto.
N. L. Piper Ry. Supply Co.....	Toronto.
The Queen City Oil Co.....	Toronto.
Wheelbarrows	
James Cooper.....	Montreal.
Rice Lewis & Son.....	Toronto.
Windmills	
Ontario Wind Engine and Pump Co.....	Toronto.
Window Blinds	
The Hudson's Bay Company.....	
Wines and Liquors	
The Hudson's Bay Company.....	
Wire and Wire Rope	
Dominion Wire Rope Co.....	Montreal.
The B. Greening Co.....	Hamilton, Ont.
Rice Lewis & Son.....	Toronto.
W. H. C. Mussen & Co.....	Montreal.
The Wire and Cable Co.....	Montreal.
Wire Cloth	
The B. Greening Co.....	Hamilton, Ont.
Wire, Copper	
E. F. Phillips Electrical Works, Ltd.....	Montreal.
Wire, Electric	
E. F. Phillips Electrical Works, Ltd.....	Montreal.
The Wire and Cable Co.....	Montreal.
Wire, Insulated Copper	
E. F. Phillips Electrical Works, Ltd.....	Montreal.
Wire, Telegraph and Telephone	
E. F. Phillips Electrical Works, Ltd.....	Montreal.
The Wire and Cable Co.....	Montreal.
Yachts	
Poison Iron Works.....	Toronto.

The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Steamship, Express, Telegraph & Telephone supplies, &c.

Accident Insurance Travelers' Insurance Co. Montreal.	Derrieks James Cooper. Montreal.	Milepost Numbers Acton Burrows Co. Toronto.
Aerated Waters E. L. Drewry. Winnipeg.	Door Signs Acton Burrows Co. Toronto.	Mohair The Hudson's Bay Company.
Air Brakes & Fittings Westinghouse Mfg. Co. Hamilton, Ont.	Dry Goods The Hudson's Bay Company.	Numbers Acton Burrows Co. Toronto.
Ales E. L. Drewry. Winnipeg.	Electric Car Route Signs Acton Burrows Co. Toronto.	Oakum Rice Lewis & Son. Toronto.
Anchors Rice Lewis & Son. Toronto.	Electric Cranes Dominion Bridge Co. Montreal.	Oils Galena-Signal Oil Co., Franklin, Pa., & Toronto.
Axles Jas. W. Pyke & Co. Montreal.	W. H. C. Mussen & Co. Montreal.	The Queen City Oil Company Toronto.
Rhodes, Curry & Co. Amherst, N.S.	Enameled Iron Signs Acton Burrows Co. Toronto.	Office Signs Acton Burrows Co. Toronto.
Babbitt Rice Lewis & Son. Toronto.	Engines, Stationary & Marine Polson Iron Works. Toronto.	Packing Gutta Percha and Rubber Mfg. Co. Toronto.
Blankets & Bedding The Hudson's Bay Company.	Engraving Acton Burrows Co. Toronto.	The N. L. Piper Railway Supply Co. Toronto.
Block & Tackle Dominion Wire Rope Co. Montreal.	Expanded Metal Expanded Metal and Fire-Proofing Co. Toronto.	Pinch Bars The Hiram L. Piper Co. Montreal.
Rice Lewis & Son. Toronto.	Express Office Signs Acton Burrows Co. Toronto.	The N. L. Piper Railway Supply Co. Toronto.
Boat Fittings & Hardware Rice Lewis & Son. Toronto.	Fencing Canadian Steel and Wire Co. Hamilton, Ont.	Pipe Covering Mica Boiler Covering Co. Montreal.
Boiler Covering Mica Boiler Covering Co. Montreal.	Page Wire Fence Co. Walkerville, Ont.	Pushes The Hudson's Bay Company.
Boilers Polson Iron Works. Toronto.	Fire-Proofing Expanded Metal and Fire-Proofing Co. Toronto.	Porter E. L. Drewry. Winnipeg.
Boiler Tubes B. J. Coghlin & Co. Montreal.	Flags Rice Lewis & Son. Toronto.	Portland Cement Rice Lewis & Son. Toronto.
Jas. W. Pyke & Co. Montreal.	The Hudson's Bay Company	Printing The Hunter, Rose Co. Toronto.
Bolsters Simplex Railway Appliance Co. Montreal.	Flour The Hudson's Bay Company.	The Mail Job Printing Company Toronto.
Bolts Rice Lewis & Son. Toronto.	The Ogilvie Flour Mills Co. Montreal.	Pumps Rice Lewis & Son. Toronto.
Brake Beams Simplex Railway Appliance Co. Montreal.	Foghorns Rice Lewis & Son. Toronto.	Railway Supplies The N. L. Piper Railway Supply Co. Toronto.
Brass and Copper Cloth The B. Greening Co. Hamilton, Ont.	Gates Page Wire Fence Co. Walkerville, Ont.	Rail Joints Montreal Rolling Mills Co. Montreal.
Brass Castings St. Thomas Brass Co. St. Thomas, Ont.	General Supplies The Hudson's Bay Company.	Rails (New) James Cooper. Montreal.
Bridge Numbers Acton Burrows Co. Toronto.	Grain Elevators John S. Metcalfe Co. Chicago, Ill.	Drummond, McCall & Co. Montreal.
Bridges Dominion Bridge Co. Montreal.	Groceries The Hudson's Bay Company.	J. J. Gartshore Toronto.
Buoy Lighting Safety Car Heating and Lighting Co., New York	Hardware Rice Lewis & Son. Toronto.	Rails (for relaying) James Cooper. Montreal.
Cables, Electric E. F. Phillips Electrical Works, Ltd., Montreal.	The Hudson's Bay Company	J. J. Gartshore Toronto.
The Wire and Cable Co. Montreal.	Headlights N. L. Piper Railway Supply Co. Toronto.	T. A. Morrison & Co. Montreal.
Cables, Feeder E. F. Phillips Electrical Works, Ltd., Montreal.	Hose Gutta Percha and Rubber Mfg. Co. of Toronto.	W. H. C. Mussen & Co. Montreal.
Car Couplers Latrobe Steel and Coupler Co., Philadelphia, Pa.	Rice Lewis & Son. Toronto.	Rice Lewis & Son. Montreal.
Car Heating Safety Car Heating and Lighting Co., New York	Illustrations Acton Burrows Co. Toronto.	Jas. W. Pyke & Co. Montreal.
Car Jacks James Cooper. Montreal.	Interlocking Plants Canada Switch and Spring Co. Montreal.	The Wire and Cable Co. Montreal.
W. H. C. Mussen & Co. Montreal.	Iron Rice Lewis & Son. Toronto.	Roof Trusses Dominion Bridge Co. Montreal.
Car Lighting Safety Car Heating and Lighting Co., New York	Iron Signs Acton Burrows Co. Toronto.	Rope Rice Lewis & Son. Toronto.
Carpets The Hudson's Bay Company.	Japans McCaskill, Dougall & Co. Montreal.	The Hudson's Bay Company
Cars Rhodes, Curry & Co. Amherst, N.S.	Journal Bearings Jas. W. Pyke & Co. Montreal.	Rubber Goods Gutta Percha and Rubber Mfg. Co. of Toronto.
Car Wheels Jas. W. Pyke & Co. Montreal.	St. Thomas Brass Co. St. Thomas, Ont.	Semaphore Arms Acton Burrows Co. Toronto.
Rhodes, Curry & Co. Amherst, N.S.	Lager Beer, &c. E. L. Drewry. Winnipeg.	Semaphores The Hiram L. Piper Co. Montreal.
Castings Canada Switch and Spring Co. Montreal.	Lamps & Lanterns The Hudson's Bay Company.	The N. L. Piper Railway Supply Co. Toronto.
Rhodes, Curry & Co. Amherst, N.S.	Launches Polson Iron Works. Toronto.	Shafting Rice Lewis & Son. Toronto.
Cement Estate of John Battle. Thorold, Ont.	Life Insurance Independent Order of Foresters. Toronto.	Shipbuilders' Tools & Supplies Rice Lewis & Son. Toronto.
Cement Machinery Jas. W. Pyke & Co. Montreal.	Travelers' Insurance Co. Montreal.	Ship Lamps The Hiram L. Piper Co. Montreal.
Chains Rice Lewis & Son. Toronto.	Lights, Contractors and Wrecking James Cooper. Montreal.	The N. L. Piper Railway Supply Co. Toronto.
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Concrete Mixers W. H. C. Mussen & Co. Montreal.	Linoleum and Floor Coverings The Hudson's Bay Company.	Shovels James Cooper. Montreal.
Contractors' Plant James Cooper. Montreal.	Locomotives (Compressed Air) American Locomotive Co. New York, N.Y.	The Hudson's Bay Company
T. A. Morrison & Co. Montreal.	Baldwin Locomotive Works Philadelphia, Pa.	Rice Lewis & Son. Toronto.
W. H. C. Mussen & Co. Montreal.	Locomotives (Electric) American Locomotive Co. New York, N.Y.	Side Bearings Simplex Railway Appliance Co. Montreal.
Cross Arms, Top Pins & Side Blocks The Firstbrook Box Co. Toronto.	Baldwin Locomotive Works Philadelphia, Pa.	Signal House Numbers Acton Burrows Co. Toronto.
Crossing Gates The N. L. Piper Railway Supply Co. Toronto.	Locomotives (Rack) American Locomotive Co. New York, N.Y.	Signals The Hiram L. Piper Co. Montreal.
Curtains The Hudson's Bay Company.	Baldwin Locomotive Works Philadelphia, Pa.	N. L. Piper Railway Supply Co. Toronto.
Cuts Acton Burrows Co. Toronto.	Locomotives (Steam) American Locomotive Co. New York, N.Y.	Signs Acton Burrows Co. Toronto.
Derrick Ropes The B. Greening Co. Hamilton, Ont.	Baldwin Locomotive Works Philadelphia, Pa.	Snow Ploughs Rhodes, Curry & Co. Amherst, N.S.
	Canadian Locomotive Co. Kingston, Ont.	Spikes Rice Lewis & Son. Toronto.
	James Cooper Montreal.	Springs Canada Switch and Spring Co. Montreal.
	W. H. C. Mussen & Co. Montreal.	B. J. Coghlin & Co. Montreal.
	Matches The Hudson's Bay Company.	Station Name Signs Acton Burrows Co. Toronto.
		Steamboats Polson Iron Works. Toronto.
		Steamboat Signs Acton Burrows Co. Toronto.
		Steam Couplers Safety Car Heating and Lighting Co., New York

(Continued on preceding page.)

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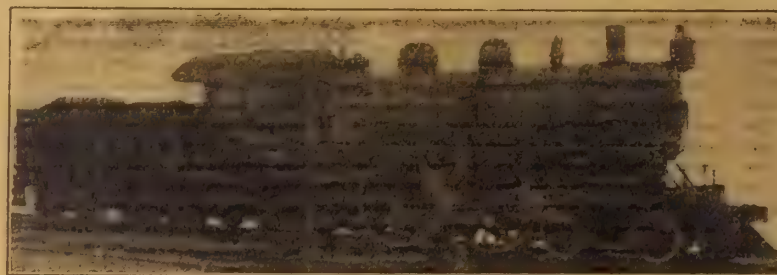
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TORONTO, CANADA, MAY, 1903.

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RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska.—G. W. Dickenson is reported to have secured the capital to construct the Alaska Central Rd., from Resurrection bay to Atwood, on the Tanana river, 415 miles. It is said that it is expected to complete 115 miles this year. G. W. Dickenson is President and General Manager, and C. H. Anderson, Chief Engineer, Seattle, Wash. (Nov., 1902, pg. 380.)

Algoma Central and Hudson's Bay Ry.—C. Shields, the newly appointed President of the Consolidated Lake Superior Co., has had a conference with T. Foley, of Foley Bros., Porter & Whalen, the St. Paul, Minn., contractors, who objected to the payment of subsidies by the Dominion Government to the A.C. and H.B. Ry., until their claims for work done on 100 miles of grade had been settled. The matters in dispute were talked over, and press reports state that the objections have been withdrawn. (Feb., pg. 37.)

The Railway Committee of the Privy Council has granted permission to the Company to cross several highways in Sault Ste. Marie, and the townships of Korah and Tarentorus. No definite announcement has been made with reference to the work for the ensuing season, but it is expected that track will be laid on the grade completed to Pangissin, and that the bridges and other work on the grade to the junction with the line from Michipicoten will be completed and track laid. (Mar., pg. 93.)

Atlantic, Quebec and Western Ry.—The Quebec Legislature has passed an act giving an extension of two years for the commencement of the projected line from Gaspé Basin, via the York river valley to the Intercolonial Ry., near Causapsal, Que. Some objection was made to the passing of the act, on the ground that the promoters only desired to construct a short line to some oil wells in which they are interested, and only proposed the larger scheme in order to obtain Government subsidies. The proposed junction with the I.C.R. has not been decided on, but we are informed that it will probably be at Amqui, 14 miles easterly from Causapsal, and the line will be constructed in nearly a straight line to Gaspé Basin, about 120 miles. (Mar., pg. 93.)

The Avondale-Brandon Central Ry. Co. is the title under which the applicants for an act to incorporate the Manitoba Central Ry. Co. were authorized to do business at the last

session of the Manitoba Legislature. (April, pg. 119.)

Bay of Quinte Ry.—The Railway Committee of the Privy Council has decided that the short line from Napanee to Deseronto shall be taken under the G.T.R. in Napanee by a subway, and will consider the question of the apportionment of the cost of the same. The B. of Q. Ry. estimates the cost at \$68,000; but the G.T.R. officials say they will construct a subway to the satisfaction of the Gov-

ter of Railways \$50,000, to be divided pro rata among the unsecured creditors of the line. Power is also asked to construct a bridge over the St. Lawrence at Brockville, so soon as the necessary powers to do so are obtained in the United States. Mr. Cooper is one of the largest of the judgment creditors of the B.W. and S.S. M. Ry. Co., and is interested in the action now before the courts asking that the recent sale of the line to the reorganization syndicate in New York be set aside. (Feb., pg. 37.) See also Brockville, Westport and Sault Ste. Marie Ry., Mar., pg. 93, and April, pg. 140.

Canada Atlantic Ry.—The Ottawa city council has passed the necessary by-law diverting certain streets prior to the construction of the subway on Elgin st. The cost of the subway will be about \$51,000, and will be borne by the C.A. Ry., the C.P.R. and the Ottawa Electric Ry. in equal proportions. (Feb., pg. 37.)

Cape Breton Ry.—Tracklaying will be resumed on an early date on the six miles of grade from Sporting Mountain to St. Peters, N.S., which will complete the line from Point Tupper to St. Peters, 31 miles. Press reports say it is expected that construction will be commenced this year on the extension of the line from St. Peters to Louisburg. (Feb., pg. 38.)

The Provincial Engineer of Nova Scotia, Dr. Murphy, in his report for the year ended Sept. 30, 1902, states that up to that date 25 miles of main track and 4 miles of sidings had been laid. There are eight steel bridges on the line between Point Tupper Jct., and St. Peters, viz.: 1 four span deck plate girders, 85 ft., over the River Inhabitants; one span half-through plate girder bridge, 54 ft., at River Inhabitants; one span, deck plate girder bridge, 33 ft., at Shoal lake; one span similar style and size at Bear Creek, and one span similar style, 73 ft., at River Tillard. These bridges are erected on concrete abutments and piers. There are also 26 concrete arch culverts and 55 cedar box culverts. The table of gradients shows: 3.62 miles level, under 10 ft. a mile, 0.88 miles ascending from I.C.R., 2.64 miles descending; under 20 ft., 2.12 miles ascending, 1.80 miles descending; under 30 ft. a mile, 1.42 miles ascending, 2.82 miles descending; under 40 ft. a mile, 2.20 miles ascending, 0.66 miles descending; under 50 ft. a mile, 2.58 miles ascending, 0.19 miles descending; under 55 ft. a mile, 3.31 miles ascending, 3.56 descending; under 60 ft. a mile, 0.13 miles ascending, 0.29 miles descending; under 70 ft. a mile, 0.34 miles ascending, 0.19 miles descending; under 80 ft.



CHARLES FULLER GILDERSLEEVE,
President Dominion Marine Association, and General Manager Richelieu
and Ontario Navigation Co.

ernment surveyors for \$27,000. (Mar., pg. 93.)

Brockville and Western Ry. Co.—J. Cooper, F. W. Fairmain, A. E. Hanna, J. J. Rosevear, A. C. Bourne, of Montreal, and W. J. Webster are applying at the current session of the Dominion Parliament for incorporation under this title, to enable them to acquire the Brockville, Westport and Sault Ste. Marie Ry., or any of the bonds or other securities thereof, and to complete the line. The applicants propose, in the event of their purchasing the railway, to pay to the Minis-

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Railway Development.

(Continued from page 145.)

a mile, 0.55 miles ascending, 1.45 miles
descending. The table of alignment shows
18 miles on 61 tangents, and 12.75 miles on
64 curves. The greatest curvature is 8.30°,
of which there is 0.66 miles, and is situated in
the terminal station ground at Point Tupper.
During the year \$45,000 was paid on account
of the subsidy of \$99,200.

Carbonear to Heart's Content, Nfld.—
The Newfoundland Government is consider-
ing the advisability of extending the railway
from Carbonear to Heart's Content, about 15
miles. An act authorizing this extension has
been passed.

Central Ontario Ry.—Press reports state
that work will be commenced this spring on
an extension of the line from Bancroft to
Whitney, Ont., 40 miles. We are officially
advised that it is not known when work will
be started on the extension. (Aug., 1902,
pg. 263.)

Chateauguay and Northern Ry.—The
Quebec Legislature has passed an act amend-
ing the act of incorporation and extending
the time limit for the construction of the line
from Montreal to Joliette, 36 miles.

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Contracts have been let for all ties and fencing required, and 70-lb. steel rails have been ordered for the line. The piling for the bridge at Bout de l'Isle has been completed, and work on the piers is in progress. Grading operations are also being proceeded with. It is expected that the line will be completed by Nov. C. E. Loss, of New York, was given the contract, but sublet it to W. J. Poupore. F. A. Hibbard is Chief Engineer in charge of construction.

The bridge is being constructed over the Ottawa river, near its confluence with the St. Lawrence, at Bout de l'Isle. At this point the river is separated into two channels by Isle Bourdon. The bridge over the west channel is composed of 11 spans, representing 1,414 ft. of bridge work, and consists of a steel superstructure designed for the heaviest rolling load prescribed by the Dominion Government. It consists of a central through span of 200 ft., 8 through spans of 140 ft. each, and 2 shore spans of 47 ft. each, with a 10 ft. roadway on either side throughout. The sub-structure consists of first-class masonry piers upon concrete footings, resting on pile foundations. The bridge over the east channel is of a similar class of bridge work throughout, 1,074 ft. in length, and is composed of 9 spans, 7 of 140 ft. each, and 2 shore spans of 47 ft. each. (Feb., pg. 39.)

Coast Yukon Ry.—The applicants, at the current session of the Dominion Parliament, for the incorporation of this Company are R. Kelly, F. Burnett, and J. Webster, of Vancouver, B.C. (Jan., pg. 20.)

Detroit River Bridge.—W. Livingstone, President of the Lake Carriers' Association, recently stated that the proposed bridge should not be less than 130 ft. above high water; there were some vessels on the lakes with spars 160 ft. high, but it would be no great hardship for such vessels to strike their topmasts when passing under the bridge. G. S. Morrison, the special engineer appointed to locate a suitable site, was reported to have commenced work early in April. (April, pg. 95.)

Duluth, Virginia and Rainy Lake Ry.—Grading is reported to be completed on 30 miles from Virginia, Minn., and track laid on over 20 miles. The grade has reached Flint creek, and is being continued this year towards Koochiching, Minn., on Rainy river, opposite Fort Frances, Ont. M. S. Cook, Duluth, Minn., is the engineer in charge of construction. (June, 1902, pg. 190.)

Edmonton and Peace River Ry.—The Dominion Parliament is being asked at the current session by C. F. Law, W. H. Armstrong, of Vancouver, B.C.; W. H. Cross, of Winnipeg; O. A. Robertson and F. B. Lynch, of St. Paul, Minn., to incorporate a company with this title. (Feb., pg. 21.)

Edmonton Street Ry.—Application will be made this session of the Northwest Legislative Assembly for an ordinance to provide for aiding the construction of the proposed lines (Jan., pg. 21.)

Egerton Tramway Co. (Ltd.)—Plans have been prepared for the projected lines to connect New Glasgow, Stellarton, Pictou and Westville, N.S. The work includes the construction of a steel bridge over the river at New Glasgow. C. A. Flaherty, of Boston, Mass., is the representative of the promoters, (Jan., pg. 21.)

The Frank and Grassy Mountain Ry. proposes erecting a station at Frank, Alta., and will also build an office building adjoining for the use of the collieries. (Feb., pg. 39.)

Fraser River Bridge.—We were recently advised that all the pile piers, nos. 6, 7, 8, 9, 10 and 11, have been completed up to the copings, and that the deep pier, no. 5, which is the pivot pier for the draw span, has been successfully landed at a depth of 125 ft. below the surface of the water. The foundations for the New Westminster approach are about completed. The Dominion Bridge Co., contractor for the superstructure, has the five through fixed spans of 159 ft. each, ready for erection. Practically the whole of the material for the remaining spans has been delivered at the shops. (Feb., pg. 39.)

The Railway Committee of the Privy Council has given permission for the erection of the bridge and approaches, subject to the payment of compensation to the C.P.R. for any damage that may be occasioned by the approaches crossing its right-of-way.

Grand Trunk Pacific Ry.—Hon. G. A. Cox, E. R. Wood, Lieut.-Col. H. M. Pellatt, of Toronto; Hon. W. Gibson, Beamsville, Ont.; J. R. Booth, Ottawa; C. M. Hays, F. W. Morse, W. Wainwright, of the G.T.R.; Hon. H. B. Rainville, Montreal, and J. Bell, of Belleville, Ont., are the applicants at the current session of the Dominion Parliament for an act incorporating the G.T.P. Ry. Co. The capital stock is fixed at \$75,000,000, and may be issued in sterling, at £20 per \$100. Power is asked to construct a line from Quebec to Gravenhurst or North Bay, thence northwesterly, north of Lake Nepigon, to, in or near Winnipeg, thence westerly and northwesterly via Battleford, Edmonton and Dun-

vegan, and to Port Simpson, either by the Peace or Pine river pass to Port Simpson or Bute inlet on the Pacific coast, with power to construct branch lines to Port Arthur, Ont., Brandon, Man.; Regina, Assa.; Calgary, Alta.; and Dawson, Yukon. The construction may be divided into sections: the Quebec section from Quebec to Gravenhurst or North Bay, on which bonds may be issued to the extent of \$30,000 a mile; the Woodland section, from the Quebec section to Winnipeg, on which \$30,000 of bonds a mile may be issued; the Prairie section, from Winnipeg to the eastern limit of the Rocky Mountains, on which \$20,000 of bonds a mile may be issued; and the Mountain section, from the mountains to the coast, on which \$50,000 of bonds a mile may be issued. (April, pg. 119.)

Great Northern Ry., U.S.A.—Contracts are reported let for the construction of a cut-off from Columbia Falls to Jennings, Mont., about 50 miles, the present line being 95 miles in length between these points; and for a line from Jennings to connect with the Northern Pacific Ry. at Jocko, Mont. Jennings is the point at which the coal from the Crow's Nest district reaches the U.S. lines, over the Crow's Nest Southern Ry. and the Montana and Great Northern Ry. (Feb., pg. 39.)

(See also Vancouver, Victoria and Eastern Ry. and Navigation Co., Victoria Terminal Ry. and Ferry Co.)

Guelph Junction Ry.—The directors of the G. J. Ry. Co. are asking the C.P.R. to extend the line to Goderich. (March, 1900, pg. 77.)

Halifax and South Western Ry.—Dr. Martin Murphy, Provincial Engineer of Nova Scotia, in his annual report to Sept. 30, 1902, reports the progress made with surveys on the line. The contract was entered in on Aug. 20, 1901, and immediately thereafter preliminary surveys were made under the direction of H. K. Wicksteed, C.E.; and location surveys were commenced in April, 1902, after the contract had been ratified by the Legislature. On Aug. 7 plans were filed for a section of the line, and some correspondence took place in regard thereto, the plan and profile being approved from mileage 27 to mileage 40. The excess of curvature and unreasonable trestle structures were the objectionable features on the plans for the sections between station O, and mileage 27, and mileage 40 and 48½, and modifications of the same were being arranged with T. H. White, Chief Engineer in charge of construction. Special surveys were made by W. A. Hendry, on behalf of the Government, with a view of securing a suitable crossing of the La Have river, and several lines were recommended. "The delay in commencing construction throughout," the report states, "is fully justified in selecting the best course to adopt through rolling, tortuous, hilly ridges. The southwest coast of Nova Scotia is closely serrated by bays, bights and creeks that branch far inland, with bold, rocky headlands intervening, the peaks of which seldom exceed a height of 200 ft. The line has to keep as near as possible its course, keep clear of these tidal indents and find a favorable location across or between these ridges. One can easily get a location, many have been made, but to find the best and most advantageous one to adopt in the interests of construction and operation is the problem. Too many mistakes of injudicious alignment have been made in the past for lines in operation to repeat them here."

The completed plans have been submitted to the Government, and the Lieut.-Governor, at the opening of the Legislature recently, stated that construction would be vigorously prosecuted during the year. Surveys have been made from Margaret's Bay, with a view of providing an entrance into Halifax independent of the I.C.R.; the surveys previously made having contemplated joining the I.C.R.

at Bedford. About 4 miles has been graded at Hubbard's Cove, and Mackenzie, Mann & Co. have been operating the outfit abandoned by J. A. Wheaton, at this point. About 80 men have been employed. (Feb., pg. 39 and pg. 55.)

The Halifax Electric Tramway Co. is adding to its equipment at the power house, including a new plant for generating power for the street car system. (Nov., 1902, pg. 382.)

Halifax and Yarmouth Ry.—Satisfactory arrangements having been made with the Government in reference to completing the 20 miles between East Pubnico and Barrington Passage, and paying amounts due contractors, etc., the Provincial Engineer recommended the payment of \$64,000, of which \$27,295 was the estimated cost of completing the line. (Aug., 1902, pg. 263.)

Hamilton, Grimsby and Beamsville Ry.—The installation of the new power plant at Grimsby, Ont., will give 300 h.p. additional to the 350 h.p. generated by the Co. at its Stony Creek station. (Jan., pg. 23.)

Hamilton Street Ry.—The International Harvester Co. desires to have a belt line from the Barton street line round its new works, and the city council is being asked not to charge mileage on such a line. (June, 1902, pg. 191.)

Hawkesbury and Caledonia Springs.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company to construct a railway, to be operated by steam or electricity, from Hawkesbury to L'Orignal, thence to Caledonia Springs, about 10 miles. Kingsmill, Hellmuth, Saunders & Torrance, Toronto, are solicitors for the promoters.

Intercolonial Copper Mines Ry.—Surveys are reported to have been completed for a short line of railway to connect the copper mines of the Intercolonial Copper Co. with Dorchester, N.B., but it is not expected that any construction will be gone on with this year. A. W. Chapman is Local Manager of the Company at Dorchester.

Intercolonial Ry.—A contract has recently been placed with a firm in Scotland for 25,000 tons of steel rails. It is said this contract has been sublet to German makers.

Tenders were received to April 30 for the double-tracking of the line from Richmond, N.S., mileage 0.8, from Halifax to Rockingham, mileage 4.1, a distance of 3.3 miles.

Tenders are under consideration for the construction of an extension to the freight car repair shops at Moncton, N.B.; for the erection of a passenger station and residence at Brown's Point, near Pictou, N.S., and for new freight sheds at Sydney and Elmsdale, N.S.

Surveys are reported as being made for an extension of the Rimouski branch to Father Point, Que.; and for the construction of a branch from Fort Lawrence siding to the new wharf at the dock. The wharf is expected to be erected this year at a cost of \$20,000. Surveys have also been made for an extension of the line from Sydney to Sydney Mines, N.S. (Feb., pg. 40.)

The International Transit Co. commenced operating its car service at Sault Ste. Marie, Ont., Mar. 30. The service connects with the ferry str. Fortune, by which connection is made with the lines of the Trans-St. Mary's Traction Co., Sault Ste. Marie, Mich. The two electric systems and the connecting ferry are controlled by the Consolidated Lake Superior Co. (Mar., pg. 95.)

Inverness Ry. and Coal Co.—The subsidy voted by the Nova Scotia Legislature towards the construction of this line was \$226,000 for 56½ miles from Port Hastings to Broad Cove, and \$18,000 from Port Hastings to junction with the I.C.R. at Port Hawkesbury. Of

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturer of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

this \$233,000 has been paid, leaving \$11,000 due on Sept. 30, 1902. (Feb., pg. 41.)

James Bay Ry.—H. K. Wicksteed, C.E., is making location surveys for the extension of the line from Parry Sound towards Sudbury. The surveys made in 1902 out of the town showed lines which would be very expensive to construct, and the principal object of the present survey is to secure a less expensive line with better grades. Practically the same staff is working on this line as was engaged during the winter on the Canadian Northern Ry. surveys east of Port Arthur, Ont. (Nov., 1902, pg. 383.)

Joliette and Lake Manuan Colonization Ry.—The applicants to the Dominion Parliament, at the current session, for the construction of a railway from Joliette to Lake Manuan, Que., under this title are: D. Dostaler, E. Hebert, of Joliette, Que.; A. Dugas, E. Turgeon, of St. Jean de Matha, Que., and J. A. Archambault, of St. Michel des Saints, Que. (Feb., pg. 41.)

Keewatin and Ontario Ry.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company to construct a railway from the western boundary of the province to Rat Portage, and thence to the mouth of the Albany river, with power to construct branches northerly to the territory of Keewatin, and southerly to the C.P.R. Kerr, Davidson, Paterson and Grant, Toronto, are the solicitors.

Kennebec Valley Rd.—W. M. Ayer, A. R. Small, of Oakland, Me.; R. W. Dunn, W. T. Haines, of Waterville, Me., recently applied to the Maine Legislature for incorporation under this title with power to purchase the Somerset Rd., now being operated from Waterville to Bingham, and to extend it from Bingham to Moosehead lake, where connection could be made with the C.P.R. line. The Railway World says: "It is another important move to create a highway from the C.P.R. to the Maine coast and interior, and will be watched with interest by the existing steam companies in Maine."

Kettle Valley Lines.—The station buildings at Grand Forks, B.C., have been completed, and the head office of the Company has been moved there. (Feb., pg. 41.)

Kingston and Gananoque Electric Ry.—The Perth and Gananoque town councils have granted aid to Mr. Judd, of Gananoque, to enable him to secure the revival of the company's charter at the current session of the Ontario Legislature. The line is to run from Gananoque up the Rideau to the ferry, thence to Perth, and probably to the village of Lanark. (Feb., pg. 41.)

Kingston and Pembroke Ry.—Press reports state that ballasting on the line is expected to be resumed in the vicinity of Sharbot lake, Ont. (Feb., pg. 41.)

Klondike Mines Ry.—E. C. Hawkins recently returned to Vancouver, B.C., from a visit to Dawson, Yukon, where he had been making arrangements for the starting of construction on this line. (Feb., pg. 41.)

Kootenay, Cariboo and Pacific Ry.—The applicants, at the current session of the Dominion Parliament for an act incorporating a company with this title are: C. H. Pollen, R. L. T. Galbraith, H. Watt, J. A. Harvey, of Fort Steele, B.C. (Feb., pg. 41.)

Liverpool and Milton Ry.—Arguments have been heard in the Supreme Court at Ottawa and judgment reserved upon the appeal of this company against a decision of the Supreme Court of Nova Scotia, granting an injunction to restrain the company from operating its trains on the railway where it passes along a street in Liverpool, until certain regulations made by the town council have been complied with,

Loboro Ry. Co.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company under this title to construct a railway, to be operated by steam or electricity, from the northeasterly end of Loughborough lake to some point on the Kingston and Pembroke Ry. McGivern and Haydon, Ottawa, are the solicitors.

London, Aylmer and North Shore Electric Ry.—It is reported that the right of way for this line from London to Port Burwell, Ont., has been secured, and that construction will be commenced on an early date. The power house, car barns, etc., will be constructed at Aylmer. (Feb., pg. 43.)

London Street Ry.—The litigation between this company and the London city council has gone to the Court of Appeal. The council passed a by-law authorizing the construction of certain extensions of lines, and the taking up of a line on Rectory st., but the by-law was not signed by the Mayor. The company acted on the unsigned by-law, and sought to obtain an order compelling the Mayor to sign the by-law. Since the litigation was commenced another by-law has been passed, and this the company desires to have declared void until the court of appeal has decided the case. (Nov., 1902, pg. 383.)

Lotbiniere and Megantic Ry.—The Quebec Legislature has passed an act authorizing an extension of the line from Kinnear's Mills to Windsor Mills and Brompton Falls, via Lime Ridge, and extending the time for the construction of the line authorized from Lyster to Thetford, Que. (Feb., pg. 43.)

Mabou and Gulf Ry.—Dr. Martin Murphy, Provincial Engineer of Nova Scotia, says in his annual report that the contract for the construction and equipment of this line is divided into two sections, one for the portion of the line between Mabou coal mines and the crossing of the Inverness Ry. and Coal Co.'s line, about 8 miles, the other for the 30 miles from this point to the I.C.R. at Orangedale. "The first section of 8 miles," he says, "is unlike any other we have had to deal with in Nova Scotia, chiefly on account of the heavy gradients to be overcome, hence the necessity of treating it separately. The specification provides that the 30 miles between the Inverness Ry. and Coal Co.'s line and the I.C.R. shall not exceed anywhere our ordinary maximum standard of 79.2 ft. a mile for gradients and 955 ft. for minimum limit of radius in curvature. The gradients and curvature in the 8 miles from the mines to the Inverness Ry. and Coal Co.'s line to be such as may be allowed by the Government in order to meet the requirements of the traffic." This 8 mile section was the first proceeded with; it was partially graded before the contract was signed; there were then some objectionable trestle bridges under construction, which were altered and made stronger on request, but there are two other trestle structures which the Government engineer did not approve of. The maximum gradients on the 8 miles were 4.25% for 6,000 ft., ascending to the summit from the colliery, and 4% descending from it. "These inclinations," Mr. Murphy says, "approach closely the limit of gradients that can be practically operated by traction engines; they have been worked principally for light traffic, and where more favorable location cannot be obtained without unreasonable cost; they have been operated instead of a rack rail for coal ore, or other minerals; their adoption at all is because of necessity. A redeeming feature in the adoption of this maximum gradient for the movement of the products of the Mabou mine, is that if the output becomes greater with the development of the colliery, the present location need not be abandoned, as it may become part of a more practicable, cheaper and more rapid system of transport." Some difficulties in reference to the crossing of the Inverness Ry. and Coal

Co.'s line were discussed, and correspondence took place thereon with F. R. Page, the company's engineer, and J. L. Brass, General Manager of the I. Ry. and Coal Co., whose objections to the proposed crossing were subsequently endorsed by Angus Sinclair, the company's Chief Engineer. (Feb., pg. 43.)

Macleod, Cardston and Montana Ry.—Application is being made at the current session of the Dominion Parliament by D. J. Grier, R. G. Mathews, J. A. Struthers, A. F. Grady, E. P. McNeill, of Macleod, Alta.; J. W. Woolf, W. C. Simmons, of Cardston, Alta.; J. A. McDonnell, of Nelson, B.C., for the incorporation of a company with this title. (Jan., pg. 18.)

The Manitoba Cement Co. was authorized at the last session of the Manitoba Legislature to extend its projected line from Morden to range six, so as to enable it to reach its marl deposits. Nothing has been done in the way of construction of the line. (April, pg. 119.)

Middlesex and Elgin Interurban Ry. (Electric.)—The Yarmouth township council has passed a by-law giving the Company a franchise for 50 years, and the Port Stanley village council has decided to grant a franchise for a similar period. (Feb., pg. 43.)

Middleton and Victoria Beach Ry.—An act was passed at the recent session of the Nova Scotia Legislature to enable this Company to proceed with the work of construction, which was being impeded by certain legal proceedings. The contract for the construction of the line from Middleton to Victoria Beach, about 41 miles, was entered into June 25, 1902, and construction was commenced immediately thereafter. In his report to Sept. 30, 1902, the Provincial Engineer says: "The work of grading is chiefly of a light loamy nature, through shallow cuttings that cannot be constructed in winter without undue expenditure. About seven miles of roadbed has been formed or roughly graded. So far no work in connection with bridge construction has been done, other than providing materials for erection during the ensuing working season. Material, such as ties, fencing, posts, etc., are being contracted for, for delivery in the spring." (Aug., 1902, pg. 265.)

Midland to Penetanguishene.—Application will be made at the current session of the Ontario Legislature for an act incorporating a company to construct a railway from Midland to Penetanguishene, and to a junction with the G.T.R. at Perkinsfield, Ont. Hamilton, Elliott & Irving, Sault Ste Marie, Ont., are the solicitors.

Midland Ry. of Manitoba.—We are informed by a director that no decision has been come to as to any construction being gone on with during the present season. (April, pg. 119.)

Montreal and Northwestern Ry.—L. H. Boyd, W. Patterson, A. Marsan, C. A. L. Fisher and J. F. Miller, of Montreal, have been incorporated by the Quebec Legislature under this title, to construct a steam or electric railway in the county of Argenteuil.

The Montreal Park and Island Ry. recently commenced laying track from its present line to Longue Point, and on April 1 an injunction was applied for by the Chateauguay and Northern Ry. Co., to restrain the M. P. and I. R. from further tracklaying. It is asserted that there is an agreement between the two companies, entered into in 1899, whereby each undertook not to invade the territory of the other.

Montreal Street Ry.—Press reports state that it is proposed to expend \$100,000 in repairs and improvements on the lines during the current year. In the relaying it is proposed to use 96 lb. rails, carried on steel ties

embedded in concrete. For the paving of the spaces between the tracks and 18 ins. outside the rails granite blocks will be used, the city providing the blocks and the company the labor. (Feb., pg. 43.)

The Montreal Terminal Ry. has not furnished any particulars as to its construction during 1902, but we have ascertained that it laid 8.25 miles of track in the city in 1902, from Hotel de Ville ave. to its present terminal on the city boundary near Forsyth st. The work will be completed and cars run over the line when the subway under the C.P.R. tracks at Forsyth st. has been completed. (Feb., pg. 43.)

New Brunswick Coal and Ry. Co.—Press reports recently stated that track had been laid to Coal Mine siding, at the entrance to the Newcastle coalfields. At Newcastle station and freight buildings and a 3-stall round-house have been erected. The bridges on the line, with one exception, are of I beam and riveted steel girder spans. The bridge over the Salmon river is about 500 ft. long, and consists of 3 Howe truss spans, 118 ft. each, and 1 draw span of 124 ft., 40 ft. openings. The work is being carried out under the direction of E. G. Evans, Chief Engineer. (Feb., pg. 44.)

Nipissing and Pontiac Ry.—The applicants to the Dominion Parliament at the current session for the incorporation of a company with this title are: J. Armstrong, New Liskeard, Ont.; A. C. Rorabeck, E. S. Senkler, North Bay, Ont.; E. C. Cattenach, Toronto; R. Lemieux, Montreal. (April, pg. 121.)

North Bay Southerly to C.P.R., at Myrtle, and near Toronto.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company to construct a railway or tramway from South Bay on Lake Nipissing, via Callender, to

North Bay; from South Bay to the Georgian bay, thence to Lake Simcoe, and thence to the C.P.R., in either Dufferin, Peel or York, and from Georgian bay to the C.P.R. between Myrtle and Peterborough, Ont. L. T. Barclay, of Whitby, Ont., is solicitor for the applicants, who also seek power to carry on a lumber business and to develop electrical power.

Northwest Coal and Coke Ry. Co.—E. J. Stamford, F. Seaman, J. H. Seaman, F. C. Elliott, B. B. Mighon, Nelson, B.C., and C. E. D. Wood, Macleod, Alta., are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Bull Point to Cowley, Alta. (Jan., pg. 19.)

Nova Scotia Eastern Ry.—The contract between the Company and the Government was entered into Feb. 4, 1903, and provides for the construction of a railway from the I.C.R. at Dartmouth, easterly through the Musquodoboit valley to Melrose, thence by Cross Roads Country Harbor to Guysboro, and on to the Strait of Canso; with branches from near Melrose to the I.C.R. near New Glasgow, and from Cross Roads Country Harbor, to deep water. The subsidy of \$5,000 a mile is \$1,800 a mile in excess of that previously voted, and at the last session of the Nova Scotia Legislature the new contract was ratified. An act was also passed extending the time for the commencement and completion of the lines, and authorizing the construction of a line in Antigonish, in addition to Guysborough and Pictou counties. (April, pg. 121.)

Ontario Electric Ry.—Press reports state that the right-of-way is being secured for the projected electric railway from Cornwall to Toronto; that construction will be begun this spring, and that the line between Toronto and Kingston will be completed by the end of the

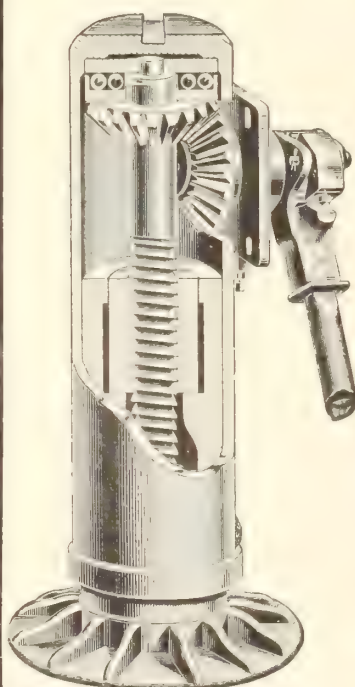
year. R. J. Carson, of Kingston, Ont., one of the provisional directors, recently stated in an interview that power would be acquired from the Trent river, and that the power-house would be located at Trenton; the repair shops would be at Kingston; the track would be a single one for the present; the cars would be 56 ft. long and the service would be an hourly one. Boston people are said to be interested in the proposal, and E. J. B. Pense, M.L.A., in a speech recently stated that they had bought some of the water privileges on the Trent river. (April, pg. 121.)

Ottawa, Northern and Western Ry.—The grading on the extension from Gracefield to Maniwaki has been completed for 14 miles, to Blue Sea Lake, and track laying was expected to be commenced in April, 60 lb. steel rails being used. During the winter some rock work was done beyond Blue Sea lake, and the right-of-way cleared to Maniwaki. Ties, posts and other timber have also been got out. It is expected that the remaining 15 miles from Blue Sea lake will be graded and the whole of the track laid by the end of the year. (Feb., pg. 45.)

Petrolia Rapid Ry. (Electric).—Application will be made at the current session of the Ontario Legislature for an act confirming by-laws passed by Enniskillen and Moore townships relating to the railway; increasing the capital of the company to \$500,000, authorizing the extension of the line through Sarnia and Point Edward to Wees Beach, and giving power to enter into agreements with other electric railway companies, and with the Michigan Central Rd. for connection and running arrangements. (Feb., 1902, pg. 60.)

Point Ann Ry.—The line being constructed from the G.T.R. near Belleville, Ont., to the works of the Belleville Portland Cement Co., is $3\frac{1}{4}$ miles in length. It is being constructed by the company, C. B. English being

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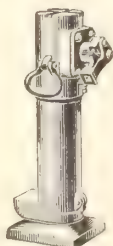
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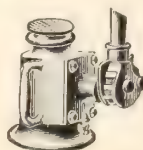
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Chief Engineer, and B. Gibson, engineer in charge of construction. (April, pg. 121.)

Portage la Prairie.—Press reports state that a Toronto company has under contemplation the construction of a street car system in Portage la Prairie, Man.

Preston and Berlin Ry.—We are advised that the line will be extended from Berlin to the beet sugar factory, but it will be some little time before work is commenced. (April, pg. 121.)

Prince Edward Island Ry.—Active work on the construction of the Hillsboro' river bridge is expected to be resumed early in May, the preparatory work having been gone on with during April. W. B. Mackenzie, Chief Engineer, recently stated that pneumatic work on the three remaining piers would be commenced in June, and these, with the remaining abutment, would probably be completed in Aug., in which case the bridge would be finished in the fall. Part of the superstructure would arrive from the Miramichi river on an early date, and the draw span later in the season. Rails had been laid at Murray Harbor, and a locomotive was on the ground, so that tracklaying and ballasting could be carried on with dispatch.

Petitions have been sent to the Government at Ottawa asking for the construction of a branch, for which a survey was made in 1882, from near Elmira to East Point, and for a line from some point to Cape Wolfe.

A suggestion has been made that the surveys, which were commenced some years ago by Sir Douglass Fox, of London, Eng., for a tunnel between Prince Edward Island and the mainland, be resumed. (April, pg. 121.)

Quebec and Lake Huron Ry.—A contract is reported to have been signed in New York for the construction of this line from Quebec city to the mouth of the French river, on Georgian bay, Ont., and press reports state that work will be commenced in Quebec during May. (Feb., pg. 45.)

Quebec and Lake St. John Ry.—Application will be made at the current session of the Dominion Parliament for an act authorizing the extension of the line from its present terminal at Chicoutimi, Que., easterly or northeasterly to Hamilton inlet, or Rigole bay, or to the Gulf of St. Lawrence on the Atlantic coast. Rigole bay and the outlet of Hamilton inlet to the Atlantic ocean are in Labrador, and under the jurisdiction of the Legislature of Newfoundland, but there is navigable waters for large steamships on that portion of Hamilton inlet which extends into Canada, dividing Quebec, from the territory of Ungava. (Feb., pg. 45.)

The Quebec Central Ry. has placed an order for 10 miles of 70-lb. steel rails, with fastenings, to be made in England. (April, pg. 121.)

Quebec, New Brunswick and Nova Scotia Ry. Co.—The names attached to the petition to the Dominion Parliament asking for the incorporation of a company with this title, at the current session, are D. D. Mann, Z. A. Lash, Toronto; J. Bureau, Three Rivers, Que.; P. McSweeney, Moncton, N.B.; C. Fergie, Westville, N.S., and G. Fraser, Sydney Mines, N.S. (April, pg. 121.)

Quebec Oriental Ry.—Joaquin and Juan Patro de Gallendez, of London, Eng., and Hon. Mr. Baby, of Montreal, applied for an act incorporating the Q.O. Ry. Co., at the current session of the Quebec Legislature, with power to construct a railway from Riviere du Loup to Metapedia, Que. The



THE REID NEWFOUNDLAND CO.'S RAILWAY STATION AND OFFICES, ST. JOHN'S, NFLD.

company also asked for very extensive powers as a development company.

Quebec, Saguenay and Gulf of St. Lawrence Ry.—J. Clarke, G. Clarke, of New York, and T. Meaney, of Quebec, are applying for incorporation under this title at the current session of the Dominion Parliament to construct a railway from the Bay of Seven Islands to Quebec. Power is asked to enter into an arrangement for the sale or lease of the projected line to the C.P.R., the G.T.R. or the Grand Trunk Pacific Ry. The applicants for the charter are directors of the North Shore Power, Ry. and Navigation Co., which was incorporated by the Dominion Parliament in 1902, and which constructed about 9 miles of railway from the Bay of Seven Islands to the falls of St. Marguerite river, where a power house is being built. (Feb., pg. 47, and North Shore Power, Ry. and Navigation Co., Feb., pg. 45.)

Regina and Hudson's Bay Ry.—J. M. Young, R. S. Barrow, J. W. Smith, G. Michealis, J. K. McInnis, W. J. Cummings, Regina, Assa., and C. Michealis, Goerlitz, Germany, are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from the International boundary, between the 2nd and 3rd meridians, to Regina and Fort Churchill, on Hudson's bay, with a number of branches. (Feb., pg. 47.)

Reid Newfoundland Co.—It is reported that a branch line is to be constructed from a point near Holyrood to some large talc deposits that are being developed some miles distant. Capt. A. McGray, of Yarmouth, N.S., is interested in the matter.

The new station and office buildings in St. John's, to which the company's offices were recently removed, is a granite building, 125 ft. by 50 ft. The interior finish is of pine and oak; it is heated throughout by steam, has excellent waiting rooms and all the other conveniences of a first-class modern station. It is intended that all trains, which in the past have been running into the east end of St. John's, will arrive and depart at the new station. The steamship and all other parts of the Reid system will be operated within easy communication, and in the immediate vicinity

of the new building at the west end of St. John's. The offices in the new building have been allotted as follows: General Manager, W. D. Reid; Assistant General Manager, H. D. Reid; Superintendent, R. G. Reid, jr.; Chief Engineer, G. H. Massey; General Passenger Agent, H. A. Morine; General Freight Agent, D. Sutherland; Treasurer, H. S. Cormack; Auditor, H. M. McNeil; Paymaster, E. B. Bartlett; Assistant Superintendent, F. Rioux; Dispatching department; Superintendent of Shipping, Capt. S. Blandford; Purchasing Agent, H. Crawford; Superintendent Express department, H. B. Curtis; Solicitor, A. B. Morine; railway medical man, Dr. L. Paterson. An illustration of the building is given on this page. (Feb., pg. 46.)

The Riverside Park Ry. Co. was incorporated at the last session of the Manitoba Legislature to construct a steam or electric railway from Winnipeg to St. Norbert. (April, pg. 121.)

Sandwich, Windsor and Amherstburg Ry.—The Railway Committee of the Privy Council has authorized the company to cross the Canada Southern Rd. near Amherstburg and at Sandwich st., Amherstburg, subject to agreement, and to cross tracks at Sandwich st., Windsor, at its own cost. The line to Amherstburg is practically completed, and is expected to be placed in operation about the middle of May. No further extensions are contemplated to be made this year. (April, pg. 121.)

Shawinigan Falls Terminal Ry. Co.—The Quebec Legislature at the current session passed an act extending the line for the commencement and completion of the authorized lines. (April, 1902, pg. 145.)

The St. Chrysostome Ry. Co. will apply at the current session of the Dominion Parliament for incorporation. The company was incorporated some years ago by the Quebec Legislature, and the date for commencing work has been extended from time to time, the last occasion being at the current session. J. P. Brown, of St. Chrysostome, Que., is President of the Co. (April, pg. 121.)

The Suburban Rapid Transit Co. applied at the last session of the Manitoba Legisla-

ture for power to operate its projected line from Winnipeg to Headingly, by steam or electricity, and to enter into an agreement with the Winnipeg city council for an entrance into the city. The bill, however, was withdrawn by the promoters. (Feb., pg. 47.)

Temiskaming and Northern Ontario Ry.—The Ontario Commissioner of Public Works recently drove over 50 miles of the route from North Bay. It was reported to him that 22½ miles of grade had been completed, and grading was in progress to Boyce Lake, 50 miles from North Bay. The gradients, he said in an interview, are easy, the maximum being 1% going north and 1¼% going south; the maximum curve is 6°, but there are not many so sharp as this, most of them being 1° or 2°; there are no reverse curves, and the ends of all curves are eased. The contractor contemplates starting grading at New Liskeard during the summer and working southerly. The Commissioner added that 40 miles of grade would be ready for tracklaying by June, the rails would be laid at the rate of 25 miles a month, and that it was expected to reach Lake Temagami this fall.

The Commissioners have arranged with the

C.P.R. to use that company's terminal facilities at North Bay and have secured running rights over the C.P.R. track from North Bay to Nipissing Jct., which would give the T. & N.O.R. connection with the G.T.R., in case the latter should lose the right to run over the C.P.R. between the points mentioned. (Mar., pg. 97.)

The Valleyfield Electric Ry. Co. has been incorporated at the current session of the Quebec Legislature. (Feb., pg. 45.)

Vancouver North, B.C., Tramline.—Two suggestions for tramlines have been projected, one for a gravity line from the highest limit to the waterfront, about half a mile, and the other for a line, about 8 miles in length, to the summit of Mount Crown. J. Balfour-Ker is interested in the first named project.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—An official of the Great Northern Ry., U.S.A., is reported as saying that the Hope mountains will be crossed by the V., V. and E. Ry. by a gradient of a little more than 2%, and that the line will be constructed so as to go down through Sumas, with a branch line back to Chilliwack. The

gradient, he said, would be a little too steep to enter Chilliwack direct. (Feb., pg. 49.)

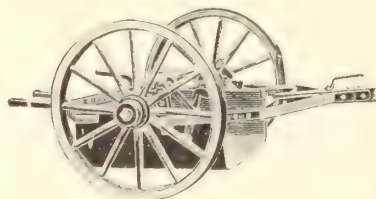
Victoria Terminal Ry. and Ferry Co.—Press reports state that it was expected to have track laid on the line between Port Guichon and Cloverdale, B.C., about 18 miles, by the middle of April. The wharf and slip for the transfer of the cars was being proceeded with and the steamer Victorian has been completed for service as a car ferry between Port Guichon and Sidney. It is also proposed to construct a line from Port Guichon to Liverpool. The Great Northern Ry., U.S.A., now holds the charter of the V.T. Ry. and Ferry Co. (Feb., pg. 49.)

The Western Extension Ry. Co. was incorporated at the last session of the Manitoba Legislature to construct a number of branch lines, and a contract entered into with the Government respecting the construction of several of the lines mentioned was ratified. The incorporators of the Co. are officials of the Canadian Northern Ry. (April, pg. 123; also under Canadian Northern Ry., April, pg. 129.)

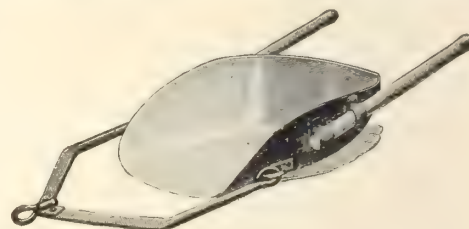
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Windsor, Essex and Lake Shore Rapid Electric Ry.—Press reports state that work will be commenced at an early date on this projected line from Windsor to Wheatley, Ont., about 43 miles. A. J. Nelles, formerly of the Hamilton, Grimsby and Beamsville Electric Ry., is interested. (Nov., 1902, pg. 387.)

The Winnipeg and Fort Alexander Ry. Co. was given an act last session of the Manitoba Legislature extending the time for the commencement of its railway from Winnipeg to Fort Alexander, until 1906, and for its completion to 1913. (April, pg. 123.)

The Winnipeg Electric Street Ry. proposes to extend its line on Portage ave. this year, and press reports state that extensions to East and West Kildonan, are also projected. Additional boiler power has been added at the power house.

The Woodstock, Thames Valley and Ingersoll Electric Ry. was authorized by the Railway Committee of the Privy Council recently to cross the G.T.R. on Dundas st., Woodstock, but will have to put in a derailling device. (June, 1902, pg. 198.)

RAILWAY FINANCE, MEETINGS, ETC.

Baie des Chaleurs Ry.—A call of 10% upon the unpaid shares has been made, and payment was to have been made at the company's offices, in Montreal April 30. The B. des C. Ry. Co.'s line of railway was purchased by the Atlantic and Lake Superior Ry. Co., which, however, did not take over the franchises or obligations of the company. The B. des C. Ry. Co., therefore, continues in existence, and is winding up its affairs. (April, pg. 141.)

British Columbia Electric Ry. Co.—Earnings and expenses for Feb.:—

	1902.	1903.	Increase or Decrease.
GROSS EARNINGS.			
Railway—Vancouver division	\$8,701	\$10,619	\$1,918+
Victoria	7,755	7,800	45+
Westminster	6,338	8,060	1,722+
Lighting—Vancouver division	14,606	17,336	2,730+
Victoria	7,766	8,376	610+
	45,166	52,191	7,025+
Less working expenses	30,944	33,488	2,544+
	14,222	18,703	4,481+
Renewal funds	3,458	4,222	764+
Net income	10,764	14,481	3,717+
Gross earnings, July 1, 1902, to Feb. 28, 1903	399,969	455,428	55,459+
Net earnings, July 1 to Feb. 28, 1903	\$137,337	\$155,544	\$18,207+

The company recently offered for subscription in London, Eng., £175,000 of 4½% power debentures of £1,000 each, part of an issue of £220,000 for the erection of the new water-power being developed by the Vancouver Power Co. The B.C.E. Ry. Co. will have the controlling interest in the power company. (April, pg. 141.)

Brockville, Westport and Sault Ste. Marie Ry.—The reorganization syndicate having completed its payment of the purchase money on Mar. 20, took possession of the line on April 1. W. H. Comstock, J. Cumming, W. S. Buell, D. Derbyshire, R. Bowie, and W. C. Fredenberg, are reported to have been elected provisional directors, pending the obtaining of the proposed new act of incorporation.

See also Brockville and Western Ry., under Construction, Betterments, etc., pg. 145.

Calgary and Edmonton Ry.—Net earnings for Feb., \$10,927.45, against \$30,294.34 for Feb., 1902; making for two months ended

Feb. 28, \$31,605.96, against \$60,662.68 for same period 1902.

Canada Coals and Ry. Co.—The report to Sept. 30, 1902, as published by the Provincial Engineer of Nova Scotia, shows an income from the railway of \$28,254.07, made up as follows: Passengers, \$3,178.51; freight, \$23,962.07; parcels, \$497.08; mails, \$301.44; mileage, \$314.97. The expenditure was \$13,653.62, and included \$5,190.60 for maintenance of way; \$4,790.14 for locomotive power; \$986.03, car repairs, and \$2,686.85 traffic expenses. The net earnings were \$14,600.45.

Canadian Northern Ry.—Gross earnings:—

	1902-03.	1901-02.	Increase.
July	\$132,300	\$7,200	\$45,100
Aug.	130,900	97,000	33,900
Sept.	209,300	103,300	106,000
Oct.	190,200	120,610	69,590
Nov.	259,800	119,142	140,658
Dec.	202,300	129,918	72,382
Jan.	154,700	102,067	52,633
Feb.	147,825	100,524	38,301
	\$1,427,325	\$868,761	\$558,564

Working expenses for Feb., \$97,650; net earnings, \$50,175, against \$40,416 for Feb., 1902; net earnings for eight months to Feb. 28, \$500,541, against \$351,543 for same period 1901-02.

Canadian Pacific Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing the issue of consolidated debenture stock in lieu of bonds; such stock not to bear a higher rate of interest than the bonds to be retired, and to be issued in Canadian currency or sterling. The proceeds from the sale of the stock are to be applied for such purposes as the Company has power to issue bonds, and the holders of the new stock will rank *pari passu* with holders of consolidated debenture stock issued under any previous acts.

The Secretary, C. Drinkwater, is reported to have recently stated that the bill for the conversion of the bonds of the branch lines into consolidated 4% debenture stock will enable the company to place all these securities which are now locked up in its own safes, on the market. The consolidated 4% debenture stock is a favorite investment with the public, who are not disposed to purchase bonds. In one sense it is a domestic rearrangement of the company's financial house, but it is nevertheless of much public interest. The recent extensive purchases of property in the east end of Montreal, and the acquisition of the Elder-Dempster fleet, represent activities which demand large capitalization. The placing of the bonds in the market in the form of debenture stock will enable the company to make further expansions as they are deemed needful. The only bonds which the company has ever offered to the public are the first mortgage bonds on the main line, which represent \$35,000,000.

In the course of his recent budget speech in the House of Commons, the Minister of Finance explained the provisions of the C.P.R. mortgages by which the Government for some years to come will receive considerable sums of money as trustees for the bondholders from the sale of C.P.R. lands. The Government will have the use of this money on payment of 3½% to the bondholders. Probably \$2,000,000 would not be an excessive estimate of the amount to be received each year from this source for some years to come, and having the use of this money until the time when they will have to pay the bondholders will save the Government from the need of borrowing.

Central Ontario Ry.—Judgment was recently given by Chancellor Boyd in the actions of Ritchie v. Blackstock and Toronto General Trusts Corporation v. C.O. Ry. Co. These proceedings arose out of an attempt to sell the railway in Oct., 1902. In the first

action the allegations of fraud made were dismissed with costs, and in the second the company, on paying the costs incurred in connection with the abortive sale, was given leave to amend its defence. A reference was made to the Master to enquire as to debenture holders, to take an account due to each, to name a day for redemption, and in default of redemption to arrange for a sale of the railway.

T. G. Blackstock, on behalf of himself and other bondholders, is making application at the current session of the Dominion Parliament for an act giving bondholders the same right as shareholders, and declaring that one bond of \$1,000 shall be equivalent to 10 shares of common stock. (April, 141.)

Central Ry. of Nova Scotia.—By the passing of an act at the current session of the Nova Scotia Legislature, this line has passed under the control of Mackenzie, Mann and Co., and will be amalgamated with the Halifax and South Western Ry., now under construction. The arrangements for the sale were made early in 1902, the terms being subject to legislative ratification. The railway was the property of the Halifax Banking Co., recently amalgamated with the Canadian Bank of Commerce. The purchase price was \$525,000. The Government of Nova Scotia will issue \$425,000 of provincial debentures, to be secured by first mortgage, the balance of \$100,000 being provided by Mackenzie, Mann and Co., who are secured by a second mortgage. The Co. has a land grant of 150,000 acres along its line which is also acquired by Mackenzie, Mann and Co.

The financial statement for the year ended Sept. 30, 1902, as published in the report of the Provincial Engineer of Nova Scotia, shows: receipts, \$61,806.81, made up of \$30,021.70 from passengers, \$26,430.74 from freight, \$2,059.96 from parcels, \$1,841.88 from mails, and \$1,452.53 from rents. The expenditures were \$19,162.82 on account of maintenance of way, \$12,848.44 for locomotive power, \$2,550.17 for car repairs, \$7,753.01 for traffic expenses, \$3,146.44 for general charges, and \$137.07 miscellaneous, total \$45,597.95. The net revenue was \$16,208.86.

Dominion Atlantic Ry.—Gross earnings for Feb. \$45,300, against \$48,128 for Feb., 1902, making for two months ended Feb. 28 \$93,800, against \$109,179 for same period 1902.

Grand Trunk Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing the issue of additional 4% guaranteed stock, to rank *pari passu* with that issued under the act of 1884, the total amount of old and new stock combined not to exceed \$10,000,000. C. Bartholomew, Toronto, who says he is holder of debenture stock, recently addressed a letter to the Speaker alleging that the shareholders of the company had not authorized the affixing of the official seal to such a petition.

Great Northern Ry., U.S.A.—The land grant of the Nelson and Fort Sheppard Ry. in British Columbia has been taken over by the G.N.R., and is being administered from the Co.'s land office in St. Paul, Minn. (April, pg. 141.)

Halifax and Yarmouth Ry.—The report of the Provincial Engineer of Nova Scotia for the year ended Sept. 30, 1902, contains the accounts of this line to that date. The receipts were: Passengers, \$15,529.24; mails, \$1,988.67; freight, \$7,635.98; miscellaneous, \$751.42; total, \$25,905.31. The expenditures were maintenance of way, etc., \$4,764.71; locomotive power, \$7,829.57; car repairs, \$326.25; traffic expenses, \$5,475.23; general charges, \$578.70; total, \$18,974.46. The net earnings were \$6,930.85, and the surplus \$20,357.92. The company has \$450,000 of

mortgage bonds outstanding, and has issued \$500,000 of common stock.

Intercolonial Ry.—The following comparative statement of the revenue and expenditure of the I.C.R. for 1890, 1895, 1900, 1901 and 1902, was given by the Finance Minister in his recent budget speech in the House of Commons:

Year.	Earnings.	Expenses.	Deficit or Surplus.
1890	\$2,928,080 92	\$3,481,477 07	\$553,397 15
1895	2,940,717 95	2,959,300 91	9,582 96 -
1900	4,552,071 86	4,431,404 69	120,667 17 +
1901	4,972,235 87	5,460,422 64	488,186 77 -
1902	5,671,363 91	5,574,593 30	96,770 61 +
Deficit.			+ Surplus.

London and Port Stanley Ry.—The preamble of the bill now before the Dominion Parliament sets forth that the city of London, Ont., holds \$459,945 of 1st mortgage bonds, \$164,400 of 2nd mortgage bonds, and \$149,966 of 3rd mortgage bonds, being the whole bonded indebtedness of the company; is a creditor for upwards of \$540,000 for arrears of interest, and also owns 1,828 shares out of 4,415 of the common stock. It is declared that the value of the railway is less than the total of the mortgage bonds and interest due, and that it has been agreed to call in the exist-

ing mortgage bonds and to replace them by others. The new issue of bonds to the city is to be \$1,329,735 at 5%, the principal to be paid in 10 years from Aug. 31, 1902, such bonds to be a first charge on the line; the company being barred from borrowing further, or issuing additional common stock, until the present indebtedness is cleared off. The bondholders are given power to exercise the same rights as the holders of common stock. The contract with the Lake Erie and Detroit River Ry. Co. for the operation of the line, dated Dec. 1, 1893, is not to be interfered with by the passing of the act. (Mar., pg. 106.)

Midland Ry. of Nova Scotia.—The following officers and directors were elected at the annual meeting: President, W. Strachan; Vice-President, A. Putnam; Treasurer, J. Beatty; Secretary, A. Hovenden; other directors: P. Lyall, B. T. Pearson, G. G. Faulkner, F. J. McMullen, J. Mackay and Hon. S. H. Holmes.

The report for the year ended Sept. 30, 1902, is published by the Provincial Engineer of Nova Scotia. The receipts were: passengers, \$19,457.50; freight, \$20,919.32; parcels, \$129.61; total, \$40,506.43. The expenditure

was: maintenance of way, \$12,113.14; locomotive power, \$8,994.65; car repairs, \$1,640.11; traffic expenses, \$7,339.30; general charges, \$3,017.00; total, \$33,104.20. The net revenue was \$7,402.23. The company had outstanding \$1,200,000 of temporary 4½% debenture bonds and \$104,300 of common stock. It also received \$356,264 by way of subsidies, and the total amount expended on its line and equipment was \$1,650,720. (Mar., pg. 107.)

Montreal Street Ry.—Press reports state that negotiations are in progress for the amalgamation of the M.S. Ry. with the Montreal Light, Heat and Power Co., with a total capitalization of \$50,000,000.

Earnings and expenses for Mar :

	1903.	1902.	Increase or Decrease.
Passenger earnings	\$168,987.48	\$154,894.78	\$14,092.70 +
Miscellaneous earnings	2,914.98	1,981.61	933.37 +
Total earnings	171,902.46	156,876.39	15,026.07 +
Operating expenses	118,677.11	103,846.20	14,830.91 +
Net earnings	53,225.35	53,030.19	195.16 +
Fixed charges	18,434.41	16,175.78	2,258.63 +
Surplus	34,792.94	36,854.41	2,061.47 -
Expenses of car earnings	70.23	67.04	

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This Company's Systems have been adopted by 130 of the principal Railroads of the United States and by the great Sleeping Car Company. They consist of The Steam Jacket System of hot water circulation, The Direct Steam Regulating System and Straight Steam (plain piping).

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From Oct. 1, 1902, to Mar. 31 :

	1902-3.	1901-2.	Increase. or Decrease.
Passenger earnings	\$1,000,243.96	\$914,881.24	\$85,362.72+
Miscellaneous earnings	17,247.31	9,838.78	7,408.53+
Total earnings	1,017,491.27	924,720.02	92,771.25+
Operating expenses	652,055.96	595,607.43	56,448.53+
Net earnings	365,435.31	329,112.59	36,322.72+
Fixed charges	100,138.59	90,386.66	9,751.93+
Surplus	265,296.72	238,725.93	26,570.79+
Expenses % of car earnings	65.19	65.10	
Interest on M.P. & I. Ry. Co.'s bonds owned by the Co., not included.			

The Nova Scotia Steel and Coal Co.'s railway earned for the year ended Sept. 30, 1902, according to figures published in the report of the Provincial Engineer of Nova Scotia, \$15,511.56, and expended \$17,938.78, the operations showing a net loss of \$2,427.22.

The Pere Marquette Rd. has, according to press reports, purchased three small lines—the South Haven Eastern, from Lawton to South Haven, 36 miles; the Milwaukee, Benton Harbor and Columbus, from Benton Harbor to Buchanan, 27 miles; and the Benton Harbor and Paw Paw Lake Ry., to be used in shortening the line between Chicago and Detroit.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for Feb. 1, 234.11, against \$6,689.72 for Feb., 1902; making for three months ended Feb. 28, \$4,066.36, against \$18,040.82, for same period, 1901-02.

Quebec Central Ry.—The directors have declared payment of interest for the year 1902 at the rate of 2 1/4 % on the income bonds of the Co.

Gross earnings for Mar. \$53,629.74; working expenses \$34,998.42; net earnings \$18,631.32, against \$16,875.61 net for Mar., 1902. Net earnings for three months to Mar. 31, \$25,213.51, against \$30,337.07 for same period, 1902.

Quebec and Lake St. John Ry.—Gross earnings for Jan. \$22,797, against \$22,464 for Jan., 1902.

Quebec Southern Ry., after having been closed from Jan. 20, on account of the employees having refused to work until they were paid wages due, was re-opened for traffic Mar. 27. The application to the courts for the appointment of a receiver is understood to be held in abeyance for the present. The non-operation of the line was made the subject of a question in the Dominion Parliament, the question being raised as whether the Government ought not to take power to see that subsidized railways were regularly operated. Hon. J. I. Tarte, in the course of the discussion, said he had been informed that a portion of the Eastern Valley Ry., one of the lines forming part of the Q.S.R., had been amalgamated with the Rutland Rd., and formed a valuable section of it, and its earnings were sent to the United States. The Minister of Railways expressed his willingness to have improvements made in the law respecting insolvent railways, and the Premier said the law should be amended in such a way that when subsidies were granted assurances should be provided that not only would the railway be constructed, but that it would be operated. (April, pg. 143.)

Sydney and Louisburg Ry.—The annual report, as published by the Provincial Engineer of Nova Scotia, for the year ended Sept. 30, 1902, shows receipts of \$767,969.34, made up as follows: passengers, \$60,697.06; freight, \$622,173.78; mails, \$600; miscellaneous, \$84,498.50. The expenditure was: maintenance of way, \$47,473.84; locomotive power, \$100,587.26; car repairs, \$51,789.62; traffic expenses, \$71,935.89; general charges, \$27,990. The net earnings amounted to \$468,192.73.

Shuswap and Okanagan Ry.—Net earnings for 12 months ended Dec. 31, 1902, \$17,214, against \$14,606 for same period 1901.

Toronto, Hamilton and Buffalo Ry.—Earnings for Mar., \$47,246.60, against \$41,116.93 for Mar., 1902, making for 10 months ended Mar. 31, \$393,041.53, against \$386,286.48 for same period 1901-02.

White Pass and Yukon Ry.—Gross earnings from July 1, 1902, to Mar. 21, 1903, \$1,214,717.

Mainly About People.

Sir Thos. G. Shaughnessy returned to Montreal April 5 from England.

R. Farrell, formerly Travelling Passenger Agent C.P.R., has entered the business field at Winnipeg.

C. W. Milestone, formerly Superintendent C.P.R. at Moose Jaw, Assa., has opened a lumber yard there.

Mrs. Fleming, wife of H. B. Fleming, Chief Train Dispatcher, I.C.R. at St. John, N.B., died there recently.

A. N. Bedard, of the Ottawa Transportation Co., has returned to Montreal from a trip through Egypt.

J. W. Nutt, C.P.R. Travelling Passenger Agent, Winnipeg, has resumed duty after a serious attack of pneumonia.

Mrs. C. E. Stephens, wife of the Treasurer of the Northern Navigation Co. of Ontario, died at Collingwood recently.

Sir Wm. and Lady Van Horne, with Miss Van Horne and Miss A. Van Horne, arrived in Montreal April 18 from Cuba.

W. Mackenzie, President Canadian Northern Ry., has been elected a director of the Shawinigan Water and Power Co.

W. Stevens, I.C.R. station master at Dartmouth, N.S., has been arrested on a charge of embezzlement, the alleged shortage being \$5,000.

C. S. Hyman, M.P., London, Ont., has been re-elected chairman of the Railway Committee of the House of Commons for the current session.

Harry A. Norton, of Coaticook, Que., left April 7 for Russia, where the Norton ball-bearing jacks are now being extensively introduced.

Sir C. Rivers-Wilson, President G.T.R., arrived in Montreal, April 25, for the purpose of making a trip over the line and conferring with the officials.

H. L. Piper, of the Hiram L. Piper Co., has removed his family to Montreal, where he has been living for the past year, since establishing business there.

Capt. W. Street, of the Canadian Pacific Navigation Co.'s service, was married recently at New Westminster, B.C., to Miss L. Woodward, of Lulu Island.

F. L. Wanklyn, General Manager of the Montreal Street Ry., accompanied by Mrs. Wanklyn and daughter, sailed for England April 10, for a six weeks' trip.

T. Merry, who has resigned from the Toronto Ry. Co.'s service, was recently presented with a gold chain and locket by the employees of the power house.

T. Pumphrey, chief draughtsman in the engineering office of the International Rd. of Buffalo, N.Y., was married April 8 to Miss S. E. Bartlett, of Hamilton, Ont.

E. Tiffin, General Traffic Manager of the Intercolonial Ry., left Moncton during the third week in April for California, where his daughter has been staying for some time.

M. J. Kennedy was recently presented with a gold watch and address by the conductors

and motormen of the Montreal Street Ry. on his resigning his position as Superintendent.

J. Dunlop, a well-known New Brunswick shipbuilder, died at St. John, N.B., April 4. He built a number of ships for a firm in Liverpool, Eng., and latterly for Wm. Thomson & Co. of St. John, N.B.

G. O. Somers, who has been appointed Assistant to the Fourth Vice-President of the Great Northern Ry., U.S.A., is a native of Barrie, Ont., and was the first station agent at Parkdale, Toronto.

F. P. Blackman, who was the principal promoter of the British Pacific Ry. project, is making application at Chicago, Ill., under the Bankrupts' Act, to be relieved of all debts provable against his estate.

D. G. Ross, who resigned his position as Superintendent C.P.R. at Fort William, Ont., some months ago, on account of ill-health, arrived in Winnipeg April 13, after spending the winter in California.

J. W. Tyrrell, who has had charge of the surveys for the Hamilton and Caledonia Ry., will be absent from Hamilton, Ont., during the summer on a surveying expedition for the Dominion Government in Saskatchewan.

W. Woollatt, General Superintendent Lake Erie and Detroit River division, Pere Marquette Rd., is a provisional director of the Drake Ranching Co. (Ltd.), recently incorporated under the Ontario Companies' Act.

A. M. Stark, local superintendent of the Bell Telephone Co., Toronto, has resigned in order to perfect an invention he has patented for the sending of telephone messages as well as supplying power and light over the same wire.

G. B. Williams, recently appointed chief clerk in the office of the Master Mechanic, C.P.R., Winnipeg, was entertained at dinner by the members of the C.P.R. Club, Toronto Junction, Ont., prior to his departure for Winnipeg.

A. H. Lindsay, who has recently been appointed to the advertising department of the I.C.R., was entertained by the newspaper men of St. John, N.B., on leaving for Moncton, N.B., to take up the duties of his new office.

A. W. Trenholm, who has been appointed General Manager of the Chicago, St. Paul, Minneapolis and Omaha Rd., at St. Paul, Minn., is spoken of by Nova Scotia papers as being well known in Truro and Amherst, N.S., and Moncton, N.B.

Dr. G. Smith, Government physician on the construction of the Temiskaming and Northern Ontario Ry., was seriously injured by a fall from his horse recently in North Bay, Ont. He received a severe kick on the head, in addition to a broken arm.

B. C. Gesner, who has resigned his position as air-brake inspector on the I.C.R., to enter the employ of the Galena-Signal Oil Co., Franklin, Pa., was entertained at dinner April 20, by the employees of the locomotive department at Moncton, N.B.

W. J. Singleton, Superintendent of District 6, C.P.R., has been since Mar. 22 in the Homeopathic Hospital, Montreal, where he underwent an operation. On April 16 we were advised that he was recovering rapidly, and that he hoped to return to duty in May.

J. Crawford, who died at Verdun House, Montreal, April 5, aged 89, was one of the promoters of the first street railway in Montreal in 1861, and was its President from 1877 to 1884. He was a familiar figure at annual meetings of the C.P.R. and other companies.

The engagement of Miss Eva Woollatt, daughter of W. Woollatt, General Superintendent Lake Erie and Detroit River division Pere Marquette Rd., Walkerville, Ont., to O. U. MacMicking, of Calgary, Alta., is an-

nounced; the wedding will take place in June.

S. Geo. Tate, formerly Travelling Freight Agent of the Michigan Central Rd. at Buffalo, N.Y., who resigned some time since to enter the service of the American Express Co., is now in the office of the manager of the foreign department at 65 Broadway, New York.

P. Carlin, the C.P.R. conductor charged with conspiracy to defraud the company in connection with a clerk in the audit department, by obtaining information when secret audits of trains were to be made, has been sentenced to two years' imprisonment at Montreal.

G. Swain, who has been C.P.R. station agent at Winnipeg since 1881, celebrated his 76th birthday April 28. He has been in railway service continuously since 1844, in England and Scotland until 1853, and with the G.T.R. from 1853 to 1879, when he joined the C.P.R. at Winnipeg.

A. U. Bain, chief clerk to the General Superintendent C.P.R. at Toronto, was married there April 11 to Miss H. A. Leslie, daughter of the late R. A. Leslie, of Napanee, Ont.

The officials of the company at Toronto presented him with a case of dessert knives and forks and a set of carvers in connection with the event.

Arthur White, formerly Division Freight Agent, G.T.R. at Toronto, was presented with an address by the chief officers of the freight department G.T.R., April 9, at general offices in Montreal; and on the same day with an album containing photographs of all the members, by the Canadian Freight Association.

Wallace C. Orchard, who has been appointed in charge of the newly organized freight tariff bureau of the C.P.R. at Montreal, was born in London, Eng., Mar. 16, 1865, and entered railway service 1889, his record being June, 1889, to Mar., 1893, audit department C.P.R.; Mar., 1893, to Mar. 30, 1903, tariff clerk General Freight Agents' office C.P.R.

J. Woodman, who recently resigned his position as Division Engineer of the Western division of the C.P.R., is going to Salt Lake City, Utah, on a vacation and to look after some private interests. Prior to the change which went into effect on April 1, by which the Western division was divided into two

new divisions, the Central and the Western, Mr. Woodman had charge of 3,967.6 miles of line.

W. Coyne was recently presented with an address and a silver service, and entertained at dinner by the employees of the traffic and transportation departments of the Dominion Iron and Steel Co. and the Dominion Coal Co. at Glace Bay, N.S., on leaving the service of those companies, to take up his residence in Sault Ste. Marie, Ont., as Assistant to the President Consolidated Lake Superior Co.

T. Monroe, who died recently at Coteau Landing, Que., was engaged as engineer during the construction of the Montreal and Kingston section G.T.R., the Hamilton and Port Dover Ry., and for a number of years was in the Dominion Government service, and had charge of the construction of the Soulages canal from 1892. He was President of the Canadian Society of Civil Engineers in 1895.

T. Foley and M. Foley, railway contractors, St. Paul, Minn., who have extensive contracts with the C.P.R. in Ontario and the Northwest Territories, have been incorporat-

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ed with T. H. Lock, A. S. Lock, of Winnipeg, wholesale grocers and merchants, and others, under the Manitoba Companies' Act, as Foley, Lock and Larson, with a capital of \$300,000, to carry on a general wholesale and commission business.

C. Halifax Hall, formerly of Nelson, B.C., whose address we enquired for in our March issue, advises us that he has been for some months at Wilmer, B.C. The Nelson post office was instructed to forward his mail to Wilmer, but a letter from our office addressed to him at Nelson was by mistake re-addressed at the Nelson post office to Cranbrook, B.C., and returned to us marked "not called for," which explains the reason for our enquiry.

Thos. Tait, formerly Manager of Transportation C.P.R., who has been appointed Chairman of the Board of Railway Commissioners for Victoria at Melbourne, was entertained at dinner April 14, at St. James' Club, Montreal, by officers of the C.P.R. He left Montreal April 17, and after spending a few days in Toronto with his father-in-law, G. R. R. Cockburn, went to Vancouver, B.C., sailing thence for Australia May 1, accompanied by Mrs. and Miss Tait.

David Edward Blair, who has been appointed Assistant Superintendent of the Montreal Street Ry., was born at St. Thomas, Montmagny, Que., July 25, 1877, and graduated B.Sc. at McGill University, 1897, entering the employ of the Quebec Ry. Light and Power Co. immediately thereafter. He worked his way up from the position of Assistant Electrician to that of Chief Electrician and Mechanical Superintendent, which position he occupied until Mar. 15, when he removed to Montreal.

B. C. Gesner, who has been appointed travelling expert for the Galena-Signal Oil Co., for the Maritime Provinces and Newfoundland, with headquarters at Moncton, N.B., was born at Cornwallis, N.S., April 23, 1859. He entered railway service as messenger in the mechanical department of the I.C.R., Jan. 23, 1877, since which his record has been: fireman, Mar., 1878, to Oct., 1882; locomotive driver, Oct. 1882, to Sept., 1898; general air brake inspector, Sept., 1898, to October, 1903; Oct., 1901, to Dec., 1902, master mechanic, at Stellarton, N.S.; Dec., 1902, to April, 1903, air brake inspector; entire service with the I.C.R.

D'Alton Corry Coleman, who has been appointed General Superintendent's Accountant, C.P.R., at North Bay, Ont., was born at Carleton Place, Ont., July 9, 1879, and entered railway service Nov., 1899, since which his record has been: Nov. 1899, to Jan., 1900, clerk, Assistant Engineer's office, Fort William, Ont.; Jan., 1900, to July, 1900, clerk Superintendent's office, Fort William; July, 1900, to Sept., 1900, secretary to General Superintendent, Winnipeg; Sept., 1900, to Feb., 1901, clerk Superintendent's office, Fort William, Ont.; Feb., 1901, to May, 1902, chief clerk Superintendent's office, Cranbrook, B.C.; June, 1902, to April, 1903, chief clerk, General Superintendent's office, North Bay; entire service with C.P.R.

E. T. Hopkins, who died in Brooklyn, N.Y., April 4, was well known in Canada. An old friend writes to us of him as follows: "He had been long connected with the Canadian export business. He began railway work on

the New York Central, in New York, in its early days. He entered the service of the Erie Rd. as Foreign Freight Agent in 1872, and remained in that position for many years. When the West Shore Rd. was completed to Buffalo in 1884, he accepted a similar position on that road, which he held until four years ago, when the foreign freight departments of the West Shore and New York Central were merged, Mr. Hopkins becoming Assistant Foreign Freight Agent. His health had been failing for some years, and finally his strength was not great enough to withstand an attack of typhoid followed by pneumonia. His ripe experience made him thoroughly competent. He was always courteous, strictly honorable, and with a rare keenness of humor it is no wonder he was a great favorite with all who knew him. With him passes away one of the most familiar faces 'on 'change' in New York."

Jas. W. Leonard, who has been appointed Assistant General Manager of the C.P.R. lines west of Lake Superior, with office at Winnipeg, was born at Epsom, Ont., 1858. He entered railway service in 1872, since which his record has been:—Aug., 1872, to 1877, telegraph operator and agent Midland Ry. of Canada; Aug., 1877, to Dec., 1878, agent Victoria Ry.; Dec., 1878, to Mar., 1880, Assistant Manager same road; Mar. to June, 1880, Assistant to General Superintendent Credit Valley Ry.; June, 1880, to Nov., 1883, General Passenger Agent, same road; Nov., 1883, to May, 1884, Master of Transportation Ontario and Quebec Ry.; May, 1884, to Mar., 1887, Superintendent C.P.R. at Toronto; Mar., 1887, to Mar., 1890, Superintendent at Kamloops; Mar., 1890, to Mar., 1893, Superintendent of lines east of Montreal, same road; Mar., 1893, to April, 1901, General Superintendent Ontario and Quebec division, same road; April, 1901, to Mar., 1903, General Superintendent, Western Division, same road, at Winnipeg; Mar. to April, 1903, General Superintendent Central Division, same road, at Winnipeg.

Cornelius Shields, who has been appointed President of the Consolidated Lake Superior Co., was born at Albany, N.Y., Jan. 1, 1856. He entered railway service May, 1871, since which he has been consecutively to Mar. 9, 1882, on the Southern Minnesota Rd. and its successor the Chicago, Milwaukee & St. Paul Ry., to Oct., 1871, waterboy tracklaying train; Oct., 1871, to Sept., 1873, section hand; Sept., 1873, to Oct., 1874, telegraph operator; Oct., 1874, to Feb., 1881, station agent; Feb. to July, 1881, train dispatcher, July, 1881, to March, 1882, Chief Train Dis-

patcher; March, 1882, to May, 1883, Chief Train Dispatcher, C.P.R., western division; May, 1883, to Feb., 1887, Assistant Superintendent, same division, same road; March, 1887, to March, 1888, Superintendent, Montana division, St. Paul, Minneapolis & Manitoba Rd.; Mar., 1888, to Mar., 1889, Assistant General Superintendent, Chicago, St. Paul & Kansas City Ry.; Mar., 1889, to April, 1892, General Superintendent, same road; May, 1892, to Sept., 1893, General Superintendent, western division, Great Northern Ry.; Sept., 1893, to April, 1898, General Superintendent, Chicago, Great Western Ry.; July, 1898, to Dec., 1899, Vice-President, Spokane Falls & Northern, Nelson & Fort Sheppard, and Columbia & Red Mountain Rys., and President, Red Mountain Ry.; Dec., 1898, to Dec., 1899, also Assistant General Superintendent, western division Great Northern Ry.; Dec., 1899, to April, 1901, Vice-President and General Manager, Virginia Southwestern Ry. and Virginia Iron, Coal and Coke Co.; April, 1901, to April, 1903, Second Vice-President and General Manager Dominion Coal Co., including the Sydney and Louisburg Ry., and the Black Diamond Steamship Line. About a year ago he was also appointed 2nd Vice-President and General Manager of the Dominion Iron and Steel Co.

Grain Elevator Notes.

The Northern Elevator Co. (Ltd.), Winnipeg, is making application for additional powers, including authority to acquire the stock of other companies.

The Andrews-Gage Grain Co. has been incorporated under the Dominion Companies' Act to carry on a grain buying business in Manitoba, with offices in Winnipeg, and to construct elevators. J. E., J. C. and H. G. Gage, of Winnipeg; A. C. Andrews, F. A. Chamberlain, of Minneapolis, Minn., are the provisional directors.

The elevator under construction at Point Edward, Ont., for the Point Edward Elevator Co., is expected to be ready for operation by Aug. 1. It is located on the St. Clair river, and in connection with the G.T.R. system. The building is of wood, ironclad, with a capacity of 500,000 bush., and will be equipped with a marine leg of from 12,000 to 15,000 bush. an hour, 3 lifting legs, and belt conveyors for carrying the grain to and from storage; large weighing scales, and everything necessary to make a first-class rapid handling elevator.



CANADIAN PACIFIC NAVIGATION CO.'S STEAMSHIP VICTORIA.

Recently built at Newcastle-on-Tyne, Eng., to run between Vancouver and Victoria, B.C.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:

Earnings.	Expenses.	Net Profits.	Increase or Decrease
July \$2,449,626.51	\$2,709,000.25	\$1,175,711.25	\$79,844.32+
Aug. 3,551,084.50	2,100,283.11	1,392,001.46	57,269.36+
Sept. 3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+
Oct. 4,127,402.07	2,511,267.44	1,616,134.63	149,095.41+
Nov. 3,959,146.15	2,417,828.63	1,558,240.24	117,362.10+
Dec. 3,286,704.31	2,286,704.31	1,672,441.84	103,750.33+
Jan. 3,148,455.27	2,231,684.50	916,770.77	96,309.97+
Feb. 2,827,294.05	2,084,553.06	742,740.99	68,380.01+

\$28,490,653.50 \$18,034,958.38 \$10,455,695.38 \$730,034.28+

Approximate earnings for Mar. \$3,573,000, against \$2,934,000 for Mar., 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Feb., \$184,989.89; net earnings, \$55,599.20, against \$195,175.03 gross and \$70,558.71 net for Feb., 1902. Net earnings for eight months ended Feb. 28, 1903, \$654,568.74, against \$640,392.07 for same period, 1901-02. Approximate earnings for Feb. \$226,352, against \$201,021 for Feb., 1902.

MINERAL RANGE RY.—Approximate earnings for Feb., \$49,602, against \$45,911 for Feb., 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Feb., \$438,137.31; net earnings, \$167,492.79, against \$376,949.57 gross and \$172,895.42 net for Feb., 1902. Net earnings for eight months ended Feb. 28, 1903, \$2,454,764.37, against \$2,303,352.90 for same period 1901-2. Approximate earnings for Mar., \$544,590, against \$414,328 for Mar., 1902.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.
	1901-02	1902-03
July	155,344.93	49,089.96
Aug.	130,723.83	50,747.82
Sept.	145,535.83	60,060.46
Oct.	270,616.23	150,572.90
Nov.	146,687.83	151,922.80
Dec.	577,382.61	132,151.16
Jan.	102,581.29	109,846.99
Feb.	183,554.82	78,039.43
Mar.	184,139.22	101,029.22
	1,906,566.59	883,460.89
		\$6,769,739.35
		\$2,837,126.78

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase.	Decrease
Jan.	\$2,634,200	\$2,278,978	\$355,222	....
Feb.	2,432,661	2,018,926	413,735	....
Mar.	2,967,408	2,537,873	429,535	....
	\$8,034,269	\$6,855,777	\$1,198,492	....

The following figures are issued from the London, Eng., office:

GRAND TRUNK RY. CO.**Revenue for Feb.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$409,200	\$339,100	\$70,100	....
Working expenses	316,500	246,600	69,900	....
Net profit....	\$92,700	\$92,500	\$200	....

Aggregate from Jan. 1 to Feb. 28:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$837,500	\$703,100	\$134,400	....
Working expenses	636,000	500,000	136,000	....
Net profit....	\$201,500	\$203,100	....	\$1,600

GRAND TRUNK WESTERN RY.**Revenue for Feb.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$70,800	\$62,400	\$8,400	....
Working expenses	70,600	59,300	11,300	....
Net profit....	\$200	\$3,100	....	\$2,900

Aggregate from Jan. 1 to Feb. 28:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$164,200	\$143,400	\$20,800	....
Working expenses	153,100	125,100	28,000	....
Net profit....	\$11,100	\$18,300	....	\$7,200

DETROIT, GRAND HAVEN AND MILWAUKEE RY.**Revenue for Feb.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$19,700	\$13,200	\$6,500	....
Working expenses	14,700	12,100	2,600	....
Net profit....	\$5,000	\$1,100	\$3,900	....

Aggregate from Jan. 1 to Feb. 28:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$39,200	\$36,300	\$2,900	....
Working expenses	29,400	25,300	4,100	....
Net profit....	\$9,800	\$11,000	....	\$1,200

TRAFFIC RECEIPTS OF THE SYSTEM.**Aggregate from Jan. 1, to Mar. 31, 1903:**

	1903.	1902.	Increase.	Decrease.
Grand Trunk....	\$1,327,811	\$1,128,289	\$199,522	....
G. T. Western...	262,318	222,089	40,229	....
D. G. H. & M...	60,747	54,233	6,514
Total....	\$1,650,876	\$1,404,611	\$246,265

The Locomotive & Machine Company

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SINGLE EXPANSION AND COMPOUND LOCOMOTIVES

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THE CHEAPEST AND BEST for Floors, Roofs and Walls in Offices, Shops, Round-Houses and Freight Sheds is the Expanded Metal System of reinforcing Cinder Concrete and Cementine Mortar.

FOR CATALOGUE AND PRICES, WRITE

THE EXPANDED METAL AND FIREPROOFING CO., LIMITED, - - 98 and 100 King Street West, Toronto.

Recent Nova Scotia Legislation.

The Nova Scotia Legislature at its recent session passed the following acts relating to transportation and the allied interests:

Confirming the contract between the Government and N.S. Eastern Ry. Co.

Relating to the Central Ry. Co.

Amending the act incorporating the N.S. Eastern Ry. and the act amending the same. (Two acts, one public and one private.)

Respecting unpaid railway claims in N.S.

Relating to telephone tolls.

A number of acts enabling municipalities to borrow money in order to aid by the purchase of right-of-way or otherwise, the Halifax and Southwestern Ry., the Mabou and Gulf Ry., the Midland Ry., the Middleton and Victoria Beach Ry., and the Inverness Ry. and Coal Co.'s line.

To enable the town of Sydney to borrow \$250,000 for the purpose of encouraging a shipbuilding plant.

Amending the act incorporating the Midland Ry.

Amending the act incorporating the Granville and Victoria Beach Ry. and Development Co. (Ltd.)

Incorporating the Port Hood-Richmond Ry. Coal Co. (Ltd.)

Incorporating the Standard Coal and Ry. Co. (Ltd.)

Incorporating the Minudie Coal and Ry. Co. (Ltd.)

Amending the act incorporating the Eger-ton Tramway Co.

Incorporating the Yarmouth Marine Ry. Co. (Ltd.)

Amending the act incorporating the Inter-colonial Coal Mining Co.

Confirming lease of Dominion Coal Co. to the Dominion Iron and Steel Co.

Amending act incorporating the Cape Breton Coal, Iron and Ry. Co. (Ltd.)

Consolidating and amending the acts relating to the Bedford Electric Co., and changing its name.

Amending the act incorporating the Yarmouth and Digby Electric Ry.

Amending the act incorporating the East-ern Telephone Co.

Incorporating the Cumberland Telephone Co.

Amending the act incorporating Rhodes, Curry and Co. (Ltd.)

Canadian Ticket Agents' Association.

A meeting of the executive committee held in Toronto April 23, was attended by M. McNamara, Walkerton, Ont., President; C. E. Morgan, Hamilton, Ont., 2nd Vice-President; W. H. Harper, Chatham, Ont., 3rd Vice-President; W. Bunton, Peterboro, Ont., Chairman; W. Jackson, Clinton, Ont.; J. I. Robinson, Sydney, N.S.; J. W. Ryder, Toronto; C. C. Young, London, Ont.; E. De la Hooke, London, Ont., Sec.-Treas. There were also present by invitation H. A. Price, Assistant General Passenger Agent, I.C.R., Montreal; J. B. Lambkin, Assistant General Passenger Agent I.C.R., Halifax, N.S.; A. H. Notman, Assistant General Passenger Agent C.P.R., Toronto; C. B. Foster, District Passenger Agent C.P.R., St. John, N.B.; H. Foster Chaffee, Western Passenger Agent R. & O. N. Co., Toronto, and the Editor and Publisher of THE RAILWAY AND SHIPPING WORLD.

The representatives of the I.C.R. stated that that line would convey the members from Montreal to Halifax, thence to Sydney, N.S., and then to St. John, N.B., by special train. The C.P.R. representatives stated that the Star Line Steamship Co. would give a trip up the St. John River from St. John to Fredericton, N.B., and that the C.P.R. would run a special train from there to Montreal.

It was decided to hold the annual meeting

at Sydney, N.S., on Oct. 12. The party will rendezvous at Montreal on Thursday, Oct. 8, leaving there that evening by I.C.R. direct for Halifax, which will be reached on the evening of Friday, Oct. 9. Halifax will be left late on Saturday, Oct. 10, and Sydney Sunday morning, Oct. 11. The annual meeting will be held there on Monday, Oct. 12; in the afternoon the Dominion Iron and Steel Co.'s plant will probably be visited, and the annual dinner will be held in the evening. Tuesday, Oct. 13, will probably be spent visiting the Dominion Coal Co.'s collieries at Glace Bay, the historic ruins at Louisburg, where a clam bake may be indulged in, and Sydney will be left at night, St. John being reached on Wednesday, Oct. 14, about noon. The party will leave St. John Thursday, Oct. 15, early by boat for Fredericton, which will be reached in the afternoon and left in the evening so as to reach Montreal Friday morning, Oct. 16, when the party will disperse. The I.C.R. and C.P.R. officials will prepare an itinerary based on this programme. W. H. C. MacKay, 1st Vice-President of the Association at St. John, and J. I. Robinson, of Sydney, will arrange for hotel accommodation, etc., assisted by J. B. Lambkin of the I.C.R., and C. B. Foster of the C.P.R.

F. W. Churchill, C.P.R. town ticket agent, Collingwood, Ont., was appointed to represent the Association at the meeting of the American Association of General Passenger and Ticket Agents in New Orleans, La., commencing Oct. 13 next, the latter association having extended an invitation.

It was decided that lake and river steamboat coupon ticket agents in charge of coupon ticket offices be eligible for membership under clause 3 of the constitution.

The members of the committee appointed at the Washington meeting to consider the establishment of a co-operative insurance plan—F. W. Churchill, W. Bunton, W. H. McFarlane, W. McIlroy, and S. B. Morris—also met to prepare a report for submission at the next annual meeting.

Canadian Railway Club.

At the regular monthly meeting in Montreal April 7 Vice-President T. McHattie occupied the chair.

Most of the time of the meeting was occupied in discussing a paper contributed by A. B. Brown, of the Westinghouse Manufacturing Co., on "What shall be done to prevent moisture and other foreign matter from passing into the train line of the air brake system, so that freezing and other difficulties can be avoided."

A question sent in to the question box, "Is the operation of the per diem plan of settlement for service of foreign cars, in line with the spirit of the present M.C.B. rules, which is to the effect that foreign cars should receive the same attention when on other lines as when on home line?" elicited an interesting discussion, including a paper by J. T. Chamberlain, Master Car Builder of the Boston and Maine Rd.

Owing to want of time the discussion on L. R. Johnson's paper on "Labor organizations and their effect on shop practice" and the reading of J. O. Brumbaugh's paper on "Steam-heating passenger cars," were deferred till the June meeting.

Several members were elected.

The Baldwin Locomotive Works Record of Recent Construction, no. 41, gives illustrations of some notable trains engined by its works. Among the trains illustrated are the fast ones on the C.P.R. and the Canada Atlantic between Montreal and Ottawa.

TRANSPORTATION APPOINTMENTS.

Algoma Central and Hudson's Bay Ry.—B. J. Clergue, Manager, has resigned. It is said this position is not likely to be filled in the near future.

W. Apps, Master Car Builder, tendered his resignation in Feb., and though asked by the management to withdraw it, has decided to leave for personal reasons. E. Hacking has been appointed to succeed him.

W. Z. Earle, Chief Engineer, has resigned. The position will not be filled for the present.

J. W. Dawsey, Superintendent, Sault Ste. Marie, Ont., has resigned.

See also under Consolidated Lake Superior Co., which owns the A.C. and H.B.R.

Brockville, Westport and Sault Ste. Marie Ry.—Consequent on this line having been taken over by the re-organization syndicate, E. R. Dick, Philadelphia, Pa., President, and S. Hunt, Cincinnati, Ohio, General Manager, have retired. W. H. Cole, Receiver for the old company, has made his final report to the Court, and will retire as soon as the Local Master reports on his accounts. He is Registrar for the counties of Leeds and Grenville. E. A. Geiger remains as General Superintendent at Brockville, Ont.

Canadian Northern Ry.—W. Shanks, Roadmaster at Winnipeg, having resigned to go into farming, his duties are being performed by General Roadmaster Riordan.

W. Pratt, Jr., formerly Assistant Superintendent C.P.R. Sleeping, Dining and Parlor Cars and Hotels at Winnipeg, has not been appointed to a position in the C.N.R. service, as recently stated in a Winnipeg paper.

R. P. Lewis, of the General Superintendent's staff, is acting as Superintendent at Port Arthur, the Superintendent, A. J. Gorrie, having been appointed General Superintendent of the Great Northern Ry. of Canada.

Canadian Pacific Ry.—C. W. Spencer, heretofore General Superintendent of the Eastern Division, has been appointed General Superintendent of Transportation over all lines east of Port Arthur. Office at Montreal.

A freight tariff bureau has been organized in Montreal from which all freight tariffs of the company's eastern lines will be issued. W. C. Orchard has been given charge of the bureau, and A. R. Evans, heretofore General Passenger and Freight Agent of the Midland Ry. of Nova Scotia, has re-entered the C.P.R. service in connection with the work of the bureau. Freight tariffs of connecting lines will be concurred in by W. R. MacInnes, Freight Traffic Manager. Supplies of such tariffs and circulars, which connecting lines now send to the General Freight Agents at St. John, N.B., Montreal and Toronto, should be addressed to his office, except that W. A. Kittermaster, General Agent Freight Department, Chicago, and W. R. Haldane, District Freight Agent, Detroit, Mich., will continue to receive supplies of freight tariffs, in which the company is interested, issued by connecting lines in their respective territories. Tariffs of the company's western lines will be issued by F. W. Peters, Assistant Freight Traffic Manager, Winnipeg.

G. H. Webster, heretofore General Tie Agent, has been appointed Right-of-Way Agent, with office at Montreal.

R. J. E. Scott, Chief Inspector of Time Service, has resigned to take the management of the watch departments of H. Birks & Sons in Montreal, Ottawa and Winnipeg, with headquarters in Montreal.

A change has been made in the system of accounting, which has heretofore been done in the office of the General Superintendent's Accountant, on each grand division. In future the time of the locomotive and train men, and of all other employees of the operating department in the Superintendent's jurisdiction

will be kept by an accountant at each Superintendent's headquarters, and the pay rolls will be prepared there and forwarded to the General Superintendent's Accountants, by whom they will be consolidated and forwarded to Montreal. The following Superintendents' Accountants have been appointed:—Districts 3 and 4, T. A. Moodie, Farnham, Que.; districts 5 and 6, A. E. Crilly, Montreal; districts 8 and 9, E. Pattison, Toronto; districts 10 and 11, R. J. How, Toronto; districts 12 and 13, A. H. Hackett, Montreal; districts 7 and 14, D. Mitchell, Ottawa; district 16, E. N. Favreau, North Bay, Ont.; district 17, J. McEniry; district 18, W. T. Haynes.

James Osborne, heretofore General Superintendent of the Atlantic Division, has been appointed General Superintendent of the Eastern Division, vice C. W. Spencer, promoted. Office at Montreal.

G. A. Ringland, heretofore General Passenger Agent of Elder, Dempster & Co., in Montreal, has been appointed General Passenger Agent of the C.P.R.'s Atlantic steamship service.

W. S. Marlow, formerly in the company's freight office at Toronto, and latterly in its steamship freight office at Hong-Kong, has been appointed chief clerk in the foreign freight office at Montreal.

D. C. Coleman has been appointed General Superintendent's Accountant at North Bay, Ont., vice E. M. Favreau, assigned to other duties.

J. W. Leonard, heretofore General Superintendent of the Central Division, has been appointed Assistant General Manager of all the company's line west of Lake Superior. Office at Winnipeg.

G. S. McKinnon, heretofore Master Mechanic of the old Western Division at Winnipeg, has been appointed Master Mechanic of the Central Division at Winnipeg.

The headquarters of district 23 have been transferred from Moose Jaw to Regina, Assa., necessitating the removal of F. Dillinger, Superintendent; F. J. Reynolds, Chief Train Dispatcher; three dispatchers and two operators.

S. McDonald has been appointed Locomotive Foreman at Saskatoon, Sask.

Geo. Glasford has been appointed Locomotive Foreman at Moose Jaw, Assa., vice J. Brownlee promoted.

W. Hewitt, Trainmaster, has had his jurisdiction extended over district 24. His district now extends over the main line between Moose Jaw, Assa., and Laggan, Alta., and branches, exclusive of the Crow's Nest Pass line. Office at Medicine Hat.

R. D. Smith has been appointed Road Foreman of Engines, district 24, Western division.

D. MacLean has been appointed Road Foreman of Engines, districts 25 and 26, Western division.

W. C. Bowles, heretofore chief clerk in the Assistant General Freight Agent's office at Winnipeg, has been appointed Assistant General Freight Agent, Western division. Office at Calgary. He will have charge of the main line and branches between Portal, Laggan and Crow's Nest. Agents in that territory will report to him direct.

S. J. Hungerford, heretofore acting Master Mechanic at Calgary, Alta., has been appointed Master Mechanic of the Western division. Office at Calgary.

W. A. MacPherson has been appointed Storekeeper of the Western division. Office at Calgary, Alta.

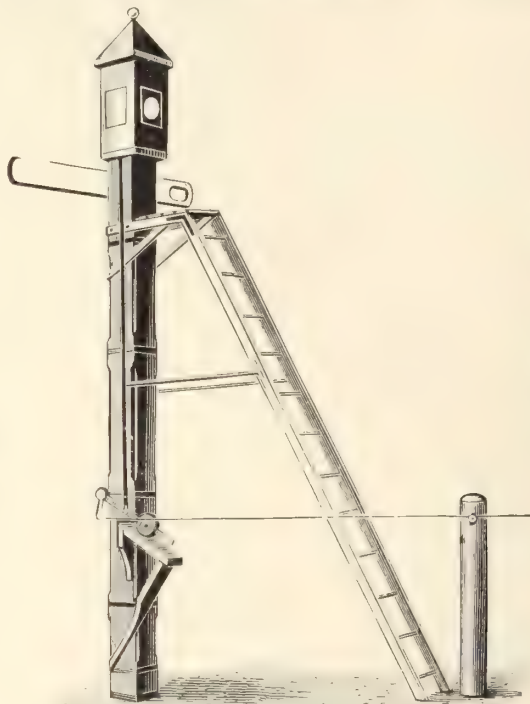
The newly established Western division has the following staff at headquarters, Calgary, Alta.:—General Superintendent, R. R. Jamieson; Division Engineer, A. S. Dawson; Master Mechanic, S. J. Hungerford; Assistant General Freight Agent, W. C. Bowles; Car Distributor, W. B. Harris; chief clerk to General Superintendent, F. M. Wilkes; Storekeeper, W. A. MacPherson.

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VIA THE GREAT LAKES AND

THE GREAT NORTHWEST

Reaches over its own rails, Winnipeg, Brandon, Portage la Prairie, Neepawa, Dauphin, in fact, all of the best towns in the Province of Manitoba.

EXCHANGES TRAFFIC AT PORT ARTHUR WITH ALL BOAT LINES.

PORT ARTHUR TERMINAL FACILITIES.

The Company's Grain Elevators are second to none on the Great Lakes, and its docks afford ample facilities for the unloading and warehousing of package freight from the largest vessels.

FAST FREIGHT SERVICE.

Daily fast freight trains between Port Arthur and Winnipeg.

PASSENGER SERVICE.

On or about the 1st of June the Company will establish a through Passenger Service between **Port Arthur and Winnipeg**. The equipment will be brand new, and the service will be such as to commend itself to the travelling public.

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T.F. and P.A., Board of Trade Bldg.,
MONTREAL.

GEO. H. SHAW,

Traffic Manager,
WINNIPEG.

Central Vermont Ry.—S. W. Cummings, General Passenger Agent, has resigned after 35 years' service with the company and its predecessors. He will retire to private life. He is succeeded by J. E. Bentley, heretofore Travelling Passenger Agent.

Consolidated Lake Superior Co.—Cornelius Shields has been elected President of this company and all its subsidiary companies, taking the place on the Consolidated Co.'s board of directors vacated by E. V. Douglas. Office, Sault Ste. Marie, Ont.

F. H. Clergue has retired from the general management of the C.L.S. Co. and of its subsidiary companies, from the Vice-Presidency of the C.L.S. Co. and the Presidency of all the subsidiary companies, but remains a director of the C.L.S. Co.

T. C. Search has resigned the Vice-Presidency of the C.L.S. Co., but remains a director. He is succeeded in the Vice-Presidency by E. H. Sanborn, heretofore Assistant Secretary.

W. P. Douglas, Secretary and Assistant-Treasurer of the C.L.S. Co., has resigned.

J. P. Hood has been appointed Secretary of the C.L.S. Co.

W. Coyne, heretofore Traffic Manager of the Dominion Coal Co., has been appointed Assistant to the President. His jurisdiction extends to all branches of the company's business. Office, Sault Ste. Marie, Ont.

We are advised that there is no truth in the report that the general offices of the C.L.S. Co. are to be removed from Philadelphia to New York. The accounting and financial departments are being removed from Philadelphia to Sault Ste. Marie, Ont., the company retaining only a small office in Philadelphia.

See also under Algoma Central & Hudson's Bay Ry.

Dominion Coal Co.—C. Shields, 2nd Vice-President and General Manager, has resigned to become President of the Consolidated Lake Superior Co.

Pending a permanent appointment, G. H. Duggan, C.E., heretofore Assistant to the President, is taking Mr. Shield's place.

W. Coyne, Traffic Manager of the Black Diamond Steamship Line and of the Sydney & Louisburg Ry., has resigned to enter the service of the Consolidated Lake Superior Co.

Grand Trunk Ry.—E. Parker, heretofore locomotive foreman at Brockville, Ont., has been appointed running shop foreman at Point St. Charles, Montreal, vice J. Kirkpatrick, resigned.

J. C. Price has been appointed foreman of the wheel and tender shops at Point St. Charles, Montreal, vice A. B. Dutton, resigned.

W. H. Sleep has been appointed foreman of the smiths' shop at Point St. Charles, Montreal, vice A. Patterson, resigned.

J. Rugg has been appointed locomotive foreman at Brockville, Ont., vice E. Parker, transferred.

G. A. Mitchell, heretofore Master of Bridges and Buildings Western division, at Durand, Mich., has been appointed Master of Bridges and Buildings Middle division. Office, Toronto.

P. Brass, hitherto acting Master of Bridges and Buildings, Middle division, has been appointed general foreman bridges and buildings, Middle division. Office, Toronto.

C. A. Hayes, heretofore Manager of the National Dispatch-Great Eastern Line at Buffalo, N.Y., has been appointed Assistant General Freight Agent, Chicago, Ill., vice D. Brown, 1st Assistant General Freight Agent, resigned. Mr. Hayes will have charge of freight traffic in the territory west of the Michigan-Indiana state line; also Milwaukee across lake.

C. Clarke, Division Freight Agent, Detroit, will have charge of freight traffic of all the lines of the system in Michigan.

I. W. Gantt, Division Freight Agent, Detroit, will have charge of eastbound freight traffic received from connecting railways at Detroit, and westbound freight traffic from the Niagara frontier and points east thereof (excepting the territory assigned to the General Agent, New York) destined to west of Detroit and St. Clair rivers.

G. J. Bishop, for many years with the Chicago, Rock Island and Pacific Ry., has been appointed Master of Bridges and Buildings G.T.R. Western division, vice G. A. Mitchell, transferred. Office, Durand, Mich.

The following agents have been installed: Pownal, Me., A. O. Paré; Empire Road, Me., H. E. Davis; Doucet's Landing, Que., J. A. Poitras; Lacadie, Que., J. E. Delisle; Brockville (Psg.), Ont., A. A. Cadwallader; Anson Jct., Ont., O. R. Burns; Bradford, Ont., W. Hirlahay; Thornton, Ont., G. Simpson; Lisle, Ont., W. J. Coulter; Middlemiss, Ont., H. Dewar; Allenford, Ont., J. L. Taylor; Muskegon, Mich., O. A. Shaner; Lakeland, Mich., J. W. McNamee.

Great Northern Ry. of Canada.—A. J. Mitchell, of Mackenzie, Mann & Co.'s Toronto staff, has retired from the directorate, and E. E. Ling, heretofore Treasurer and Assistant General Manager, has been elected in his place. The board is now constituted as follows:—President, Hon. P. Garneau, Que.; 1st Vice-President, Col. J. McNaught, New York; 2nd Vice-President, H. H. Melville, Boston, Mass.; 3rd Vice-President, V. Chateauvert, Quebec; other directors: J. T. Ross, Montreal; J. G. Scott, E. E. Ling, Quebec; Z. A. Lash, D. B. Hanna, W. H. Moore, F. C. Annesley, Toronto; ex-officio: S. N. Parent, Quebec.

J. G. Scott, heretofore General Manager, has resigned. He is also General Manager of the Quebec and Lake St. John Ry.

E. E. Ling, heretofore Treasurer and Assistant General Manager, has been appointed Treasurer.

A. J. Gorrie, heretofore Superintendent of the Canadian Northern Ry. at Port Arthur, Ont., has been appointed General Superintendent of the G.N.R., vice R. N. Russell, resigned.

The following officials are retained in their positions by the new management:—Secretary, L. G. Scott; Chief Engineer, A. E. Doucet; General Freight and Passenger Agent, G. Tombs; Auditor, W. A. Kingsland.

The reorganization of the staff has been effected by D. B. Hanna, 3rd Vice-President of the Canadian Northern Ry., on behalf of Mackenzie, Mann & Co., who have secured a large interest in the G.N.R., and who have an option on a further block of stock, which would, it is said, give them absolute control. It is also said that they have the voting power on this stock during the term of the option.

Great Northern Ry., U.S.A.—G. O. Somers, heretofore General Freight Agent, has been appointed Assistant to the 4th Vice-President.

J. C. Patterson has been appointed Principal Assistant Engineer, with headquarters at St. Paul. W. P. Whitten succeeds him as Resident Engineer at St. Paul.

E. L. Brown, General Superintendent of the Montana Central Rd., has been appointed Assistant General Superintendent of the G.N.R., with office at St. Paul, vice J. M. Gruber, resigned. F. S. Forest, heretofore Superintendent of the Spokane Falls and Northern Rd., succeeds Mr. Brown as General Superintendent of the Montana Central Rd. at Great Falls, Mont.

R. G. Morgan has been appointed Superintendent of the Spokane Falls and Northern Ry., the Columbia and Red Mountain, the Nelson and Fort Sheppard, the Red Mountain, the Washington and Great Northern Railways, and the Vancouver, Victoria and Eastern Railway and Navigation Co. Office, Spokane, Wash.

Halifax and South Western Ry.—Following is a list of Mackenzie, Mann & Co.'s construction staff:—Chief engineer, T. H. White; Superintendent of Grade, W. H. Grant; Accountant, J. D. Morton; Draughtsman, H. T. Crosbie; Stenographer and Clerk, A. M. Yuill; Division Engineer, L. H. Wheaton; Resident Engineers, C. P. McLaren, H. N. Putnam, A. MacGillivray, C. C. Henry; Assistant Engineers, S. H. Sykes, H. Longley, M. Murphy, Jr., C. O. Foss; Engineer in charge of location, A. Mitchell.

Intercolonial Ry.—B. C. Gesner, Air-Brake Inspector, has resigned to enter the service of the Galena-Signal Oil Co. On April 29 we were advised that his successor had not been appointed.

W. A. Fitch, of the dispatching office at Truro, is reported to have been appointed Chief Dispatcher at Sydney, N.S.

W. Robinson, General Travelling Agent at Toronto, retired from the service April 15, and the position has been abolished.

N. Weatherston, heretofore travelling agent, with headquarters at Toronto, has been appointed agent there. S. G. Tiffin, travelling agent, retains his position, and it is said another travelling agent will be appointed.

Midland Ry., N.S.—A. R. Evans, having resigned to re-enter the C.P.R. service, the office of General Passenger and Freight Agent has been abolished. The affairs of the traffic department will hereafter be conducted by H. V. Harris, General Manager.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—E. T. Stone, hitherto Freight Claim Agent, has been appointed Purchasing Agent, succeeding H. C. Pearce, resigned.

A. E. Hodson has been appointed Freight Claim Agent, succeeding E. T. Stone.

P. Swenson has been appointed Superintendent of Bridges and Buildings, succeeding A. Amos. Office, Shoreham, Minn.

National Despatch—Great Eastern Line.—D. T. Lawrence, heretofore New England agent at Boston, Mass., has been appointed Manager at Buffalo, N.Y., vice C. A. Hayes, appointed Assistant General Freight Agent G.T.R., at Chicago.

Pere Marquette Rd.—W. D. Trump has been appointed Assistant General Superintendent at Detroit, Mich. P. M. Place, heretofore General Trainmaster, succeeds Mr. Trump as Superintendent at Saginaw.

B. Haskell, Superintendent of Motive Power at Saginaw, Mich., has resigned and the position has been abolished.

P. Birrel has been appointed Travelling Freight Agent; headquarters, Buffalo, N.Y.

Quebec Ry. Light and Power Co.—D. E. Blair, who has been for the past five years in charge of the electrical and mechanical work of the Co.'s street railway system, has been appointed Assistant Superintendent of the Montreal Street Ry.

W. Langford, heretofore Mechanical Superintendent of the Montmorency division, has been appointed Mechanical Superintendent for all the divisions. T. Hogan has been appointed Assistant Mechanical Superintendent.

Sydney & Louisburg Ry.—See Dominion Coal Co.

Toronto Railway.—W. H. Moore, Assistant Solicitor Canadian Northern Ry., has been appointed Assistant to the President of the Toronto Ry. Office, Toronto.

Vancouver, Victoria and Eastern Ry. and Navigation Co.—See Great Northern Ry., U.S.A.

Mrs. Brignell, wife of J. Brignell, General Manager of the Nova Scotia Central Ry., died at Bridgewater, N.S., April 1.

Canadian Lake and Ocean Navigation Co.

The three new steamers which will be added to this company's fleet this year are being completed, two at Newcastle-on-Tyne, England, and one at Port Glasgow, Scotland. They are named respectively J. H. Plummer, A. E. Ames, and H. M. Pellatt, after three of the Toronto directors of the company. All are of the same general dimensions, viz.: length, 245 ft. between perpendiculars; breadth, 37 ft.; depth 24 ft. The steamers have been constructed to carry a large cargo of grain below deck, with general merchandise 'tween decks, and have five large athwartship hatches so arranged as to give every facility for loading and unloading. At the launching of the A. E. Ames, which was named by Miss Brenda Petersen, daughter of W. Petersen, one of the Vice-Presidents and General Manager of the Co., Mr. Petersen, in the course of a short speech, said these vessels were the pioneers of a scheme to carry on trade between the Great Lakes of North America and Europe. It was a too common mistake in Great Britain to regard these lakes as merely big pools of water; there was an immense volume of trade on the lakes, and it was growing very fast. The proposition was to take freight from any port in Europe to the head of Lake Superior, and from any of the Canadian or U.S. ports to Great Britain. There were 1,150 miles of navigation on the Great Lakes, upon which a ton of freight could be carried for .05 cents a mile, against .25 cents a ton a mile on the railways. Water transportation could, therefore, hold its own in competition with the railways.

The three steamers named will be operated on the Great Lakes and the St. Lawrence river, in connection with the four vessels of the turret type, which were put on the run between Port Arthur and Georgian Bay points in 1902. The European connection will be kept up from Montreal by the steamers Toronto and Aboukir, giving a service twice a month to Rotterdam. The Toronto is a steel twin-screw steamer built at Hull, Eng., in 1900, and formerly owned by the Wilsons, of Hull. Her dimensions are: length, 460 ft.; breadth, 52 ft.; depth, 34 ft.; tonnage: gross, 6,035 tons; register, 3,949. She is fitted with water ballast tanks, has four decks and a shelter deck, triple expansion engines, 22 in., 37 in. and 64 in. diameter by 42 in. stroke, to which steam is supplied by 3 cylindrical boilers. The Aboukir is somewhat similar in point of size. These steamers will bring out steel rails for the Canadian Northern Ry.

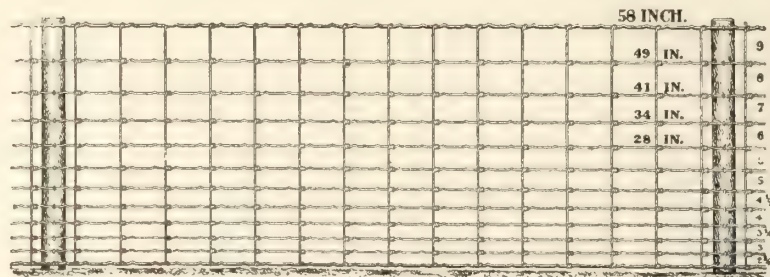
Recent Quebec Legislation.

The following acts relating to transportation and allied interests were passed at the recent session of the Quebec Legislature:

- Incorporating the Montreal Steel Works.
- Incorporating the St. George Electric Co.
- Incorporating the Valleyfield Electric Tramway Co.
- Incorporating the Red Falls Electric Co.
- Respecting the Atlantic, Quebec and Western Ry. Co.
- Amending the act incorporating the Shawinigan Falls Terminal Ry. Co.
- Incorporating the Quebec Oriental Ry. Co.
- Amending the charter of the Levis County Ry. Co.
- Incorporating the Montreal Northern Ry. Co.
- Amending the charter of the Chateauguay and Northern Ry. Co.
- Incorporating the Montreal and James Bay Ry. Co.
- Respecting Telephone Companies.
- Giving effect to the transfer of the subsidy granted to the Baie des Chaleurs Ry. Co., now the Atlantic and Lake Superior Ry. Co.

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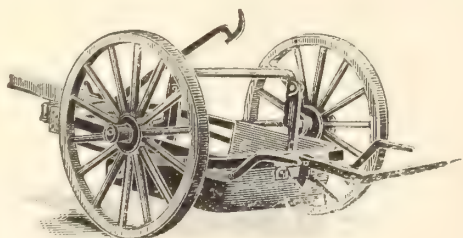
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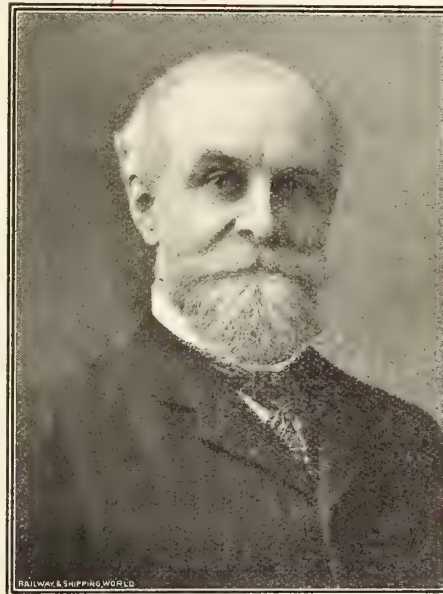
DOMINION MARINE ASSOCIATION.

The most important event in marine circles during the past month has been the establishment of the Dominion Marine Association. The movement which culminated in the very successful meeting held in Ottawa on April 7 was started in Kingston, Ont., by H. H. Gildersleeve, who enlisted the co-operation of the Kingston Board of Trade, the Secretary of which, F. King, performed the secretarial duties in a very thorough manner. The necessity for the formation of a marine association has long been felt, and its value has already been established by the results of its representations to the Dominion Government. The Minister of Finance announced in his budget speech that the canal tolls would be suspended for two years, and it has since been announced that the order-in-council imposing tonnage dues and inspection fees on vessels entering Canadian ports will be revoked. It now remains for the Association to press the other representations made to the Government, viz., for relief from the payment of overtime fees to customs officials, for the change in the "rules of the road" to harmonize them with those in use in U.S. waters, and for changes in the rules for examinations of engineers. It must be borne in mind that the canal tolls have not been abolished, they are merely suspended, and the Association will do well to collect evidence showing the favorable results of the suspension as they will undoubtedly occur, so as to present the facts to the Government and secure permanent abolition.

There are many other matters in the marine interests in regard to which the Association will undoubtedly be able to perform important work.

On the invitation of the Kingston, Ont., Board of Trade, a meeting of representatives of the Canadian merchant marine interests was held in the City Council Chamber, at Ottawa, on April 7, at 10 a.m. Among those present were: C. F. Gildersleeve, Managing Director, Richelieu and Ontario Navigation Co., Montreal; E. W. Rathbun, President, Deseronto Navigation Co., Deseronto; J. Caruthers, President Corn Exchange, Montreal; De W. Carter, Board of Trade, Port Colborne; F. H. Annes, Secretary Board of Trade, Whitby; Col. Farewell, Vice-President Board of Trade, Whitby; J. McLellan, Bowmanville; T. J. Jones, Selkirk, Man., representing the Dominion Fish Co., the Imperial Fish Co., the Northern Fish Co., Ewing & Fryer Fish Co. and the Northwest Navigation Co.; T. Stewart, Lindsay, Trent Valley Navigation Co.; G. Taylor, M.P., Gananoque; L. Henderson, Montreal Transportation Co., Kingston; T. Conlon, Thorold; R. T. Holcomb, Ottawa Forwarding Co., Ottawa; Jas. H. Hall, Ottawa Forwarding Co., Ottawa; R. C. Carter, General Manager Deseronto Navigation Co., Deseronto; D. Noonan, General Manager Rideau Lakes Navigation Co., Kingston; R. W. Shepard, Managing Director Ottawa River Navigation Co., Montreal; B. W. Folger, Manager Niagara Navigation Co., Toronto; J. Playfair, Midland Navigation Co., Midland; J. A. Cuttle, General Manager Montreal Transportation Co., Montreal; H. W. Richardson, Kingston; A. Chadwick, Kingston; A. C. Bell, M.P., New Glasgow, N.S.; T. Birkett, Ottawa; R. O. Mackay, Hamilton; J. B. Fairgrieve, Hamilton; J. Redden, Kingston; Capt. C. McInnes, Orillia; J. H. G. Hagarty, Managing Director St. Lawrence and Chicago Steam Navigation Co., Toronto; W. Leslie, Collins Bay Rafting and Forwarding Co., Kingston; G. Somerville, Manager Wentworth Navigation Co., Toronto; G. T. Howard, Manager and Treasurer C. P. C and P.

Transfer Co., Prescott; J. J. Long, President Northern Navigation Co., Collingwood; H. S. Folger, General Manager St. Lawrence River Steamboat Co., Kingston; D. Murphy, M.P.P., Ottawa; E. J. B. Pense, M.P.P., Kingston; F. Plummer, Can. Lake and Ocean Navigation Co., Toronto; T. Harling, Montreal; P. Ransfield, Ottawa; Senator Bernier, Manitoba; Senator Baker, Sweetsburg, P.Q.; Capt. J. E. Bernier, Quebec; A. A. Wright, the Victoria Harbor Lumber Co. and the French River Boom Co., Toronto; H. W. Wilson, Rideau Lake Navigation Co., Kingston; W. E. Bishop, Manager Hamilton Steamboat Co.; Hamilton; J. McKelvey, Kingston; W. Magee, Hamilton; F. A. Magee, Hamilton; A. Hicks, capt. str. Varuna; J. E. Healy, Picton, Ont.; A. W. Hepburn, Manager Lake Ontario Navigation Co., Picton, Ont.; A. H. Baker, Picton, Ont.; A. B. Colville, Algoma Central Steamship Line, Sault Ste. Marie; G. F. Marsh, Huntsville and Lake of Bays Navigation Co., Huntsville; Capt. J. Gaskin, President Board of Trade, Kingston; F. King, Secretary Board of Trade, Kingston; John McLeod, Kingston; J. McD. Mowat, Kingston; A. K. Kirkpatrick, Kingston; C. A.



EDWARD WILKES RATHBUN,
Vice-President Dominion Marine Association.

Jacques, Montreal; P. E. Campbell, President Montreal and Cornwall Navigation Co., Cornwall; J. B. Canton, Montreal; H. H. Gildersleeve, General Manager, Lake Ontario and Bay of Quinte Steamboat Co., Kingston; Thos. Donnelly, Donnelly Salvage and Wrecking Co., Kingston; M. A. Jesmer; S. G. Lindsay, Ottawa; A. P. Cockburn, Secretary-Treasurer, Muskoka Lakes Navigation and Hotel Co., Gravenhurst; T. E. Brigham, Ottawa; the Editor and Publisher of THE RAILWAY AND SHIPPING WORLD, and others who failed to register.

Capt. Gaskin, President of the Kingston Board of Trade, being absent at the opening of the meeting, E. J. B. Pense, M.P.P., took the chair and introduced the Mayor of Ottawa, F. Cook, who welcomed the delegates to the city.

J. J. Long, of Collingwood, Ont., having been elected presiding officer for the meeting, invited Hon. J. I. Tarte, Lt.-Col. Gourdeau, Deputy Minister of Marine, the Presidents of the Boards of Trade of Ottawa and Kingston and the President of the Montreal Corn Exchange to seats on the platform.

TONNAGE DUES AND INSPECTION FEES.

C. F. Gildersleeve moved that the tonnage dues and inspection fees required to be paid by the owners of Canadian steamers should be abrogated, and that the salaries and other expenses of the steamboat inspection service, to provide for which these dues are imposed and collected, should be borne and paid by the general public revenue, for the following among other reasons: That the steamboat inspection service was established simply and solely for the safety of the public, and that the taxing of steamboat owners to provide for an expenditure entirely in the interests of the general public is unfair to those who are thus forced to pay more than their share of the public expense. That in other services established for the public benefit such as the administration of justice, the customs, the militia, or the police, the public revenues bear the necessary expense. That no such fees are imposed upon steamboat owners in the U.S., the cost of the service there being defrayed from the public funds. That nevertheless, because the Canadian Government has imposed fees upon all U.S. steamers trading to any part of Canada except Ontario, the U.S. Government has in retaliation imposed on our steamers trading to their ports the same fees which we have imposed on theirs. That all Canadian steamers are thus obliged to pay double fees, namely, their own and those imposed in the U.S. as well; while, on the other hand, U.S. steamers trading to Dominion ports outside of Ontario pay only one fee, that of Canada, and those trading to ports in Ontario pay none. That Canadian owners thus suffer the double injustice of being unfairly taxed a second time by another country for the single reason that they have been unfairly taxed once already at home. That Canadian steamers thus compete for trade with U.S. steamers under a most serious disadvantage, and that this state of facts is not only prejudicial to the interests of the Canadian merchant marine, but also retards the growth and damages the prospects of the whole trade and commerce of the country. That further, freight steamers built and registered in Great Britain and doing business between Canadian ports are not subject to Canadian inspection, nor do they pay any tonnage dues. They have only to submit to inspection once every three years under the rules of English Lloyds. So that, in effect, the Canadian Government puts a premium upon ships built and registered outside the Dominion. That the principles usually governing the imposition of license fees do not apply. The Canadian merchant marine does not constitute an industry of such a nature as to require restriction; rather it is one deserving of the greatest encouragement, and no reason whatever appears for levying upon it an expenditure which ought rightly to be made from the public purse, and that this meeting is of the opinion that the laws should be amended so as to provide for abrogation of inspection fees and tonnage dues in Canada, which will relieve Canadian owners from payment both in Canada and in the U.S., and reciprocity of inspection with the U.S. by which the Canadian inspection certificate will be held to be sufficient in U.S. ports, and vice versa, so that the need for double inspection will be obviated.

In supporting the resolution, Mr. Gildersleeve said:—"It is admitted that a strong commercial marine is one of the most desirable things for any country to possess, and in Canada, with its splendid inland waters, this is equally true in regard to inland as well as ocean marine; but in Canada, from the severity of the winter and other causes, the operation of inland vessels is restricted to eight months out of the year at the longest, and in the case of some passenger steamers to only

two months. To a very considerable extent the crews which operate these vessels must be paid a rate of wages sufficient for their support for the entire year. The wear and tear of the vessels is also greater in proportion than the time of their actual employment. A large proportion of the vessels also have to compete in a greater or less degree with railways bonused and aided in different ways by public monies, while their own construction and operation is defrayed entirely by private effort. It is evident, therefore, that inland vessels in Canada are operated under great disadvantage, and are entitled to the fullest consideration in all matters connected with taxation; and if their operation is subjected to anything in the shape of questionable taxation it should be removed without the slightest hesitation. For the greater safety of passengers travelling by steamers a steamboat inspection service has been established in Canada as well as in other countries, and in order to defray the cost a tax has been placed on the steamers, in the shape of inspection fees and tonnage dues. It has never been contended that this inspection was established at the request of or for the benefit of the owners of steamers. The owners have to employ competent men to construct and operate their steamers for their own protection, and this Government inspection is entirely for the benefit of the public; and the public, that is the general revenue, should pay for it the same as it pays for the services of others employed to protect the public interests. In the U.S. a similar tax was formerly in force, but was abolished in 1886 when its unfairness was complained of by the owners of vessels. In cases, therefore, where the vessels of the two countries come

THE CANADA SOUTHERN RAILWAY COMPANY.

NOTICE.—The Annual General Meeting of the Canada Southern Railway Company for the election of directors and other general purposes, will be held on Wednesday, the third day of June, 1903, at the hour of eleven o'clock in the forenoon, at the Company's head offices in the City of St. Thomas.

Notice is also given that as the present agreement between the Canada Southern Railway Company and the Michigan Central Railroad Company will determine and expire on the 31st day of December, 1903, a special meeting of the shareholders of the Canada Southern Railway Company, will, after the Annual General Meeting, be held on the said Wednesday, the third day of June, 1903, at the hour of twelve o'clock, noon, at the said head offices of the Company in the City of St. Thomas, for the following purposes, viz.:

(1). Sanctioning, if considered desirable, a new agreement under and by virtue of the provisions of 57-58 Victoria, chapter 66, section 3, to be proposed and submitted to the Michigan Central Railroad Company.

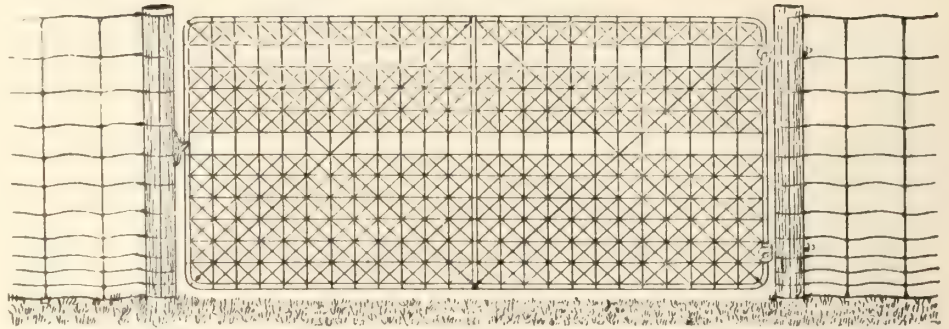
(2). Empowering the directors to create and issue bonds and debentures for the purpose of retiring existing bonds of the Company, to provide for future betterments and additions to its property, and for such other purposes of the Company, and for such an amount as the directors may consider necessary.

(3). And to give power to the directors, to do such other business as may be required by, and consequent upon, the making of the said agreement.

NICOL KINGSMILL,
Secretary, C. S. Ry. Co.

Dated at St. Thomas, 23rd day of April, 1903.

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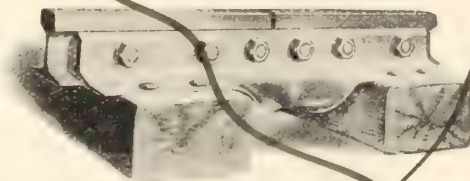
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in competition those of the U.S. have now the advantage to the extent of the tax. Within the last few years the Canadian Government in addition to taxing Canadian steamers imposed the same tax on U.S. steamers trading to Canadian ports, but the U.S. Government immediately retaliated by putting the same tax on Canadian steamers trading to U.S. ports as Canada had placed on theirs, and the consequence is that Canadian steamers calling at U.S. ports have to pay a double tax; and all because they are unfairly taxed in their own country. It is high time that there should be no tax for steamboat inspection in Canada, as there is none in the U.S., and also that there should be reciprocity in steamboat inspection between the two countries, to save double inspection of the steamers of each." B. W. Folger seconded the motion, which was unanimously adopted after Mr. Gildersleeve had stated that the cost of the inspection was about 8 cents a gross ton. It cost the R. & O.N. Co. about \$2,800 a year. Up to the time the Government started to tax U.S. vessels the fees did not pay, but since then the fees have about paid the expense of the service.

CUSTOMS OFFICERS' FEES.

E.W. Rathbun moved that the assessment of steamship, railway and ferry companies, and other public carriers, for the overtime fees of the officials of the Customs Department of the Dominion, is wrong and unjust in principle, unfair to the carriers, and cannot be justified by any method of argument, and that the services of these officials ought to be provided at the public expense, at all hours of both day and night, as well as upon all holidays, for the following among other reasons: That if it is right and proper for the public to bear the expense of these officials from 8 a.m. to 6 p.m. on all judicial days, the assessment of transportation companies instead of the public, for services performed by the officials outside these hours, can lead to no other conclusion than that the public interest would be just as well served if all traffic at ports should cease at 6 p.m. every day, and remain tied up until 8 a.m. on the day following, as well as upon all legal holidays; a conclusion which is manifestly absurd, as the public interests demand free and uninterrupted traffic at all times. That by requiring transportation companies to pay the officials the present system places the officials under obligations to those over whom they are expected to exercise surveillance—a state of affairs which cannot be too strongly condemned. That because the Government of the U.S. has taken a fair and proper view of the matter, Customs officers are provided at all U.S. ports at all times without any charge being made, and that, because of this, Canadian interests suffer a serious handicap in having to pay fees which do not fall upon competitors trading to ports in the U.S. That it is for the public benefit that the service should be maintained in an efficient state at all hours and traffic facilitated in every possible way, and that, therefore, the expense should be borne by the public rather than by any individual, company or class. That in these days of keen competition, and while the U.S. is developing such tremendous marine interests upon the Great Lakes, Canadian industries which feel the burden of these fees should be relieved, and protected and encouraged by the adoption of the legitimate principle that the public should pay for all that is for the public benefit.

In supporting the resolution Mr. Rathbun said: "I think every one interested in lake or ocean tonnage understands how these little charges and annoyances aggregate to a considerable amount every year. These charges are one of those which tend to handicap the marine interests of the part of the country

from which I come. For many years I have been persuaded that this and every charge and tax of the same kind, such as the tonnage tax referred to by Mr. Gildersleeve, should all be removed, as well as those referred to in the resolutions which are to follow. I am sure we cannot do better than take a leaf from our U.S. cousins, who are making wonderful strides in the growth of their tonnage, if we give the Government the support they are entitled to in their efforts to improve our water highways and make it attractive for the people.

In supporting the resolution, Capt. Gaskin said that prior to 1893 there was a Canadian Marine Association, which, as the result of interviews with the Government yearly for a period of nine or ten years, obtained reductions in the canal tolls from 20c. a ton to 2c. In looking over the history of the matter he found that from 1860 to 1862 there were no tolls on the canals. Subsequently the Government went back to the old system, the tolls on the Welland canal being 20c. a ton, and this went on until 1884. In 1882 the U.S. Government threw off the tolls on the Erie canal, with the result that the Canadian trade

See W.K. King, May 11, 1903.



FRANCIS KING, M.A.,
Secretary-Treasurer Dominion Marine Association.

was diverted to the U.S. canals and railways. As a result of an interview, the Government reduced the toll to 10c. a ton in 1884, and to 2c. a ton in the following year. From 1885 to 1892 the marine men waited on the Government with the result that each year the toll was fixed at 2c. a ton. In 1893 an order-in-council was passed making the toll 10c. a ton, at which rate it had since remained. In 1893 a Hamiltonian was elected President, but he had never called a meeting of the Association, and for this reason there had never been any reduction of the tolls. He had looked into the matter thoroughly, and had ascertained that with all the development that had taken place in the Northwest there was less grain going through Montreal than there was ten years ago. He had received a report from the Port Arthur Board of Trade, showing that in 1902 there were shipped from Fort William and Port Arthur 35,000,000 bush. of grain, of which 12,000,000 bush. went to Buffalo. Mr. Richardson, who was present, could tell them that in 1902 he shipped 800,000 bush. of wheat by Buffalo from Fort William, because it was 1-16 of a cent a bush. cheaper than by the Canadian route. The prosperity of the country depends largely upon its ship-

ping. England would not be worth a cent without its mercantile marine. Across the line is a country building up a vast merchant service; on the Great Lakes they are building 62 steamers for that trade, at a cost of \$13,500,000. They are doing all they can for the benefit of their mercantile marine; they are bringing their stuff to Buffalo and our stuff as well, so that we are losing trade. We have spent \$80,000,000 or \$100,000,000 on canals. You can go through the Welland canal, at times, from Port Colborne to Port Dalhousie, without meeting a boat, because we are so handicapped by the extra expense. About tonnage dues:—A man has a boat of 2,000 tons, and has to pay \$160 and the inspection fee besides. On the other side it is all free. There are only four steamers at present building in Canada, two at Collingwood and two in Toronto. The trade in Canada is carried in two ways, by rail and boat. It is unfair to the shipping interests to give their money to kill themselves and aid the railways. He sold out his shipping interests a year ago, after 44 years' experience, because he could invest his money to better advantage, but was ready to re-invest as soon as the Canadian Government dealt with the shipowners in the same way as the U.S. Government treated the ship-owners there.

The resolution passed by the Kingston Board of Trade was to the effect that the tolls on the St. Lawrence canals and the Welland canal be abolished, but the meeting desired to have the tolls on all of the canals abolished, and D. Murphy, M.L.A., moved, "that the resolution be amended so as to cover all Canadian canal tolls." He said the amount collected by way of tolls was not large, about \$236,000, while the expenditure amounted to \$647,000, so that the canals did not pay for their maintenance. The tolls collected on the different canals were: Welland canal, \$95,000; St. Lawrence canals, \$83,000; Chambly, \$23,000; Ottawa canals, including St. Anne's, \$24,000; Rideau canal, \$4,000; St. Peter's, \$3,000; Murray canal, \$1,000, and Trent Valley canal, \$1,000. The tolls could be abolished without any trouble to the Government. The company he represented paid over \$20,000 in tolls, nearly 10% of the whole tolls collected in the Dominion. Capt. Noonan seconded the motion.

De W. Carter, Port Colborne, asked if the abolition of tolls on the canals would include the charges made on the Lachine and Welland canals for vessels wintering there. The wintering of boats in the canals meant revenue to the ports in connection with the repairs, and the spending of money among the people of the neighborhood. He desired to see an amendment so as to include the abolition of charges, as provided by section 32 of the Canals Act.

The proposition to make all the canals free of toll was accepted, and Capt. Carter's suggestion was also adopted as applying to all canals.

Thos. Harling, Montreal, said: This is the first chance I have had of meeting the inland marine men of Canada. My business has been more associated with the ocean end of the business, and I may look at it from a broader standpoint than most men here on account of my business in the shipping trade in England. While Great Britain is more desirous to-day of obtaining her supplies from the colonies than ever before, it is for the colonies, especially for Canada, to endeavor to remove as far as possible any restriction to trade which may exist; so that a large transportation business could be developed to the great extent which we hope it will, and which we expect it to during the next ten years. I have been in Canada eight years and during that time the extent of transportation has increased materially. In the port of Montreal up to 1895 the size of the vessels

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trading on the Atlantic was limited to 3,000 or 4,000 tons of wheat cargo. To-day we have in the port of Montreal vessels of 10,000 tons. The U.S. has developed its business enormously, and we need every possible assistance and encouragement given to the ships trading in the St. Lawrence so that they can get a fair share of the freight. We are at a great disadvantage with the U.S. ports, being open a little over six months in the year, while they are open all the year round. In those months we have to work our utmost night and day to get along, and I feel that the charges made by customs officers is an injustice. With regard to the canal toll we have seen within the last few years a change in the transportation business because of that. Previously a good portion came through our canals, but within the last three or four years the Canada Atlantic Railway, the C.P.R. and the G.T.R. have developed their business from the west, especially from Depot Harbor and Midland, and a great deal of the grain business goes that way. No business man in Montreal or in any other part is going to do business for sentiment; he is going to do it where it is cheapest and best. If the canals have not been holding their proportion of the trade, it is because they are not the cheapest route, and if by the reduction, or the abolition of these tolls, an impetus will be given to the business by all means they should be abolished. The steamship men of Montreal are with you. They believe these tolls should be abolished and they have representatives here to-day confirming that resolution. There is another disadvantage in the business, viz, marine insurance. It is not necessary for me to say that the earnings of a vessel require to come up to the costs of running the vessel, and something more besides. A steamer going into the St. Lawrence has the disadvantage of the extra insurance imposed. A reduction had been made on the C.P.R. fleet, but when you have an insurance of £8 8s against vessels trading in the St. Lawrence as against 4½% on those trading to the Atlantic ports you will see what the disadvantage is. The question is a matter of 4% on the value of the vessels in the trade. Marine men are interested with us in saying that the port of Montreal should be relieved from this burden and be placed upon an improved status. It is only by an improvement of the St. Lawrence river and by a relief from these restrictions that we will be enabled to carry the grain and other produce from the west at a cheaper rate than that carried by our neighbors to the south. Instead of having 20,000,000 bush. of grain through the port of Montreal we ought to do 50,000,000 bush., and I am sure when we have terminal facilities in Montreal there is no reason why we should not do 100,000,000. We must carry the grain as cheap as it can be carried to New York and exported. I was very glad to hear Mr. Murphy speak for the Ottawa canal, because there the Ottawa people are especially interested in the lumber business. That business used to go by the Ottawa route. Mr. Murphy's business was built up by transportation between Ottawa and Montreal, and he tells us to-day that that business is now going to Boston by rail and carried cheaper than we can carry it to Montreal. I think, too, we should reduce our ocean rates to keep that business. Last year 20,000,000 ft. of lumber were shipped through Boston which should have gone through Canadian ports.

Hon. J. I. Tarte said trade flowed through the channels of least resistance. It was beyond doubt that Canada had the shortest route between the west and the east, and both the waterways and the railways should be developed as allies on Canadian lines. It was a surprise to him that the canals had kept their ground at all, they had not terminal facilities at either end. Port Colborne was being

equipped slowly, and it was largely the fault of the marine men, who had not educated the public as to what was required in the way of well equipped lake ports. A few years ago Montreal was in a lamentable condition as regards equipment, and was not properly equipped at present. It was within his personal knowledge that the railway companies would not bring freight to Montreal because there were not sufficient facilities to handle it. Quebec, St. John and Halifax were neither of them equipped as they should be. What was the use of spending millions of dollars upon railways in the west if that part of the Dominion becomes American for all commercial purposes? If the lines authorized to be built at the last session of the Manitoba Legislature were all constructed, it would mean that U.S. lines would divert the trade that should come through eastern Canada. They should develop a strong Canadian policy with regard to the railways and waterways, and see to it that they remained Canadian for commercial and political purposes. Having referred to the work of the Lake Carriers' Association of the U.S., Mr. Tarte said Canada must have more ships if she expected to secure increasing trade; the St. Lawrence river works, with which so much progress had been made during the last two years, would have to be completed, and the lighting of the channels finished. Within the last two years great improvements had been made in this respect, and as a result the C.P.R. had been able to obtain a reduction in the rate for insuring its steamers. As a member of parliament his voice and work would be at the disposal of the Association.

Senator Bernier, as a western representative, said if proper outlets, both rail and water, were provided, the western trade would come east through Canadian channels, but at present they had to take the cheapest route, and also the one by which there was an outlet.

CHARGES AT GOVERNMENT DOCKS.

Jas. Carruthers, Montreal, in moving that the landing charges levied against steamers calling at government docks be abolished, because it is burdensome, and owners of such steamers in some instances are compelled to pay more in these charges than their revenue from freight at that point would amount to, said the Montreal Board of Trade and Corn Exchange, of which he was a representative, was heartily in sympathy with all the resolutions brought before the meeting. There were two points which should be emphatically brought forward. As a grain shipper he felt sure that the canal tolls of from ¼ to ¾ of a cent a bush. mean that if they were abolished millions of bushels would come by Canadian routes instead of the U.S. In fact, 1-16 of a cent would at times change shipments of grain from one channel to another. Canadian sentiment was good, but it disappeared when it becomes a question of an ⅛ of a cent a bushel. The Canadian marine should have a little protection, it should be built up and encouraged. They were not asking for very much; but the petty charges and exactions should be abolished.

The Chairman said he knew something of the hardships occasioned to steamship owners through the present system of charging at government docks. The Government had on Georgian bay several small docks, and steamers are charged \$1.50 each time they call at the dock. No private dock makes any charge for steamers calling, as the proprietors are glad to have them call on account of the business brought, upon which wharfage could be collected. Shipowners considered that charging the steamers for calling at these Government docks was equal to a fine, for if the steamers did not call there would be no use for the dock. If it were necessary to make a charge for the steamer calling at the wharf,

it should not be charged to the steamer direct, but should be added to the wharfage charged on the business handled. The steamer had no way of recouping itself for such a charge, not being able to place it as a back charge against any freight landed, and not being able to impose it on any business received from the dock. The charge, therefore, was a direct loss to the owners of the steamer. In many cases the charges to the steamer for going to the dock amounted to more than the total revenue accruing from the business done at the dock on that particular trip. For these reasons the steamship owners considered that such charges should be abolished.

H. W. Richardson, Kingston, said unless Canadian tonnage was enabled to go through the Welland canal free, it would all be tied up. If we want to handle our own grain we must take all restrictions off the trade as far as possible and deal with the Welland canal until it can compete with other ports. This must be done to hold the trade. We must not let the U.S. take this trade from us. We must make our canals free, and if this is done the grain will come by the St. Lawrence route. There will be under proper treatment, at least, 2½c. a bushel in favor of Canadian routes, and the increase of trade will much more than pay for the cost of development.

RULES OF THE ROAD.

A. A. Wright, Toronto, said there was a very important matter he wished to bring before the meeting, viz., the Canadian pilot rules, commonly known as rules of the road. In 1895 the U.S. Government amended their rules to suit conditions existing on the lakes, with a view to lessening the numerous accidents in the crowded waterways. At present the Canadian rules come in conflict in fog signals, the giving of vessel descending stream the right of way, and making no provision for lights on tugs and rafts, nor for distinct fog signals for a tug when in tow of a raft or booms. The Canadian fog signal for a steamer running light is one blast of the whistle, which is often confused with a port whistle, as the U.S. signal is three short blasts. Again, in rivers and narrow waters the Canadian rule says that where safe and practicable each vessel shall pass to the right hand or starboard side of mid-channel, which has really meant in the past that the most determined captain with the strongest vessel enforces his claim to the right of way. The Canadian rules do not forbid cross signals, and this should be done to prevent captains answering one whistle with two until the vessels come so close that collision is almost inevitable. Again, the U.S. rules specify cross lights on a tug towing a raft, instead of vertical lights, thus warning approaching vessels of the presence of a raft. The Canadian rules make no provision for this, nor do the Canadian rules make any provision for lights on a raft further than the old rule in force on timber rafts, which calls for a bright fire to be kept burning from sunset to sunrise, which is physically impossible on the lake. The condition of the rules puts vessel owners in Canada in a very dangerous position in case of accident, as owing to the limited number of Canadian vessels on the lakes, captains are compelled, for the safety of their vessels, to adopt U.S. rules even when in Canadian waters. For doing this they are subject to a fine of not less than \$20 or more than \$200 for each offence. He moved that the meeting request the Department of Marine and Fisheries to bring the Canadian rules in harmony with those of the U.S. This was carried.

EXAMINATIONS FOR MARINE ENGINEERS.

A. P. Cockburn invited attention to the injustice practised upon engineers engaged on vessels navigating the minor inland waters, who were barred from examination for the position of engineers on the ground that they

had not served upon a larger class of vessels than traded on these minor waters. A third-class engineer could not be promoted on these waters, and the provision requiring a fireman to serve 48 months before presenting himself for examination as an engineer was entirely unjust. The effect of these regulations was to create a dearth of engineers upon these northern waters. There were, to his knowledge, on the minor lakes many eligible and likely young men who could qualify upon their merits as engineers, and would serve the purpose of the vessel owners better than strangers, but, owing to the regulations, they could not present themselves for examination, and were compelled to enter other employments or leave home. He and others had endeavored to have this injustice to the inland lakes remedied and was able to secure some concessions, but still more were required.

Capt. Fairgrieve, R. C. Carter and Capt. Gaskin, having made some remarks about the old association, on motion of Acton Burrows and E. W. Rathbun it was resolved that a permanent organization be formed in the interest of the Canadian marine, and that another meeting be held in the afternoon to take the necessary steps towards the formation of such an association. This was adopted.

The meeting was continued in the afternoon, when on motion of T. Donnelly, King-

ton, it was decided to organize under the name of the Dominion Marine Association. The following officers were elected: President, C. F. Gildersleeve, Montreal; Vice-Presidents, J. J. Long, Collingwood; E. W. Rathbun, Deseronto; other members of executive committee: Capt. Crangle, Toronto; R. O. McKay, Hamilton; T. Harling, Montreal; J. A. Cuttle, Montreal; R. C. Carter, Deseronto; Capt. T. Donnelly, Kingston; Capt. J. Gaskin, Kingston; A. A. Wright, Toronto. The selection of a Secretary-Treasurer was left in the hands of the executive committee, F. King consenting to act till some one else was selected, in case he could not accept the position, which the meeting desired him to do, his work in the preliminary organization having been so satisfactory.

DEPUTATION TO GOVERNMENT.

On the following day, the members of the Association waited on the Government to present their views on the matters that had been under discussion. The ministers present were: the Premier, the Postmaster-General, the Minister of Railways and Canals, the Minister of Public Works and the Minister of Customs. Hon. J. I. Tarte, ex-Minister of Public Works, was also present, and the deputation was introduced by W. Harty, M.P. for Kingston.

The memorial, which was addressed to the Premier, the Minister of Marine, the Minister of Customs and the Minister of Railways and Canals, asked for the abrogation of: (1) Tonnage dues and inspection fees imposed on steam vessels in Canada; (2) Fees payable to Customs officers for service after hours and on holidays; (3) Tolls imposed on vessels using the Dominion canals. The memorial also recommended the substance of the additional resolutions passed by the convention in favor of steps being taken to harmonize the Canadian and the U.S. Rules of the Road from the head of the Great Lakes to Montreal; and also in favor of the abolition of landing charges at government wharves. An additional memorial of the steamboat owners upon the minor inland waters, addressed to the Minister of Marine, was also read, asking that the regulations respecting the examination of engineers be amended to allow firemen who have served two seasons, or twelve months, as firemen on minor inland waters, to stand examination for 4th-class papers on their merits; that 4th-class engineers be allowed to stand examination for 3rd-class certificate on two seasons, or 12 months' service as engineers; and that 3rd-class engineers be allowed to run an engine of any size found necessary to put in boats on minor inland waters, at the discretion of the Inspector.

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J. J. Long, who acted as chairman of the meeting on the previous day, read the memorial, and added a few words in reference to the collection of charges at government wharves, while short speeches were made by C. F. Gildersleeve, on tonnage dues; E. W. Rathbun, on fees to Customs officers after hours and on holidays; and by T. Harling, D. Murphy, Capt. Gaskin and Capt. Carter, generally in support of the memorial. Mr. Gildersleeve mentioned as a fact, that vessels of the R. and O. N. Co. which reached Montreal by running the rapids, were, on the return trip by the canals, charged toll as if they had used the canals both ways.

The Premier and the Minister of Railways and Canals replied on behalf of the Government, and promised to give every consideration to the memorials and what had been said in their support.

C.P.R. Betterments, Construction, Etc.

Since the form containing pg. 179 of this issue went to press we have received the following information as to the principal betterments which are to be undertaken this year:

ATLANTIC DIVISION.—Sidings are to be rearranged at Brownville Jct. and McAdam

on this division and embankments widened and curves spiralled. The work of extending the passing sidings on the entire division to accommodate the greater length of trains will be vigorously prosecuted.

ONTARIO DIVISION.—Forty-two miles of track are to be rebalasted and a large quantity of new 80-lb. rails laid. The yards at Toronto and Toronto Jct. are to be extended and new coaling stations built at these points and at Owen Sound and Windsor. A number of trestle bridges will be filled and replaced by permanent masonry or steel structures and passing sidings are to be extended.

LAKE SUPERIOR DIVISION.—One hundred miles of track will be rebalasted and embankments widened and curves spiralled on this division. Some 20 passing sidings will be extended to accommodate trains of 60 cars in length. Great improvements are to be made at North Bay, consisting of new double grid-iron yard, a double track two miles long, an 18-stall engine-house, with machine shop 60x-200 ft., a new freight shed, a new modern coaling station and a new turntable. When these improvements are completed there will be at this point a terminal of 2,000 cars capacity, in which trains can be made up and despatched in a most economical and modern

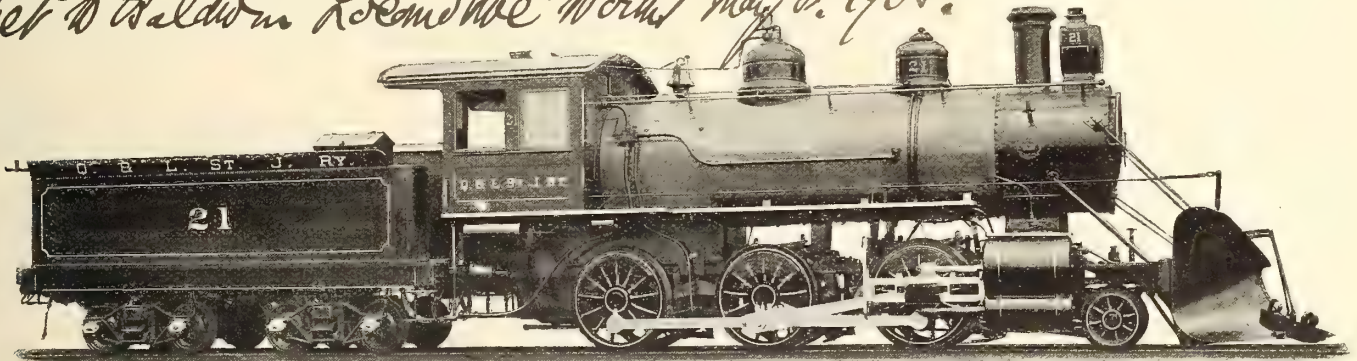
sion. Sidings at many points are to be extended to accommodate the increased length of trains, and 50 miles of ballasting, embankment widening, and spiralling of curves will be done. A large number of water tanks, section-houses and tool-houses are to be built. Extensive improvements are to be made at Golden, North Bend, Nelson and Vancouver. The Lulu Island Ry., from Hastings St. to Granville St., in Vancouver, will be double-tracked. Many trestles are to be filled or replaced by permanent structures.

Railway Equipment Notes.

The Winnipeg Electric Street Ry. is having built by the Toronto Ry. Co. 6 40-ft. double-truck closed motor cars of the Toronto Ry. standard type. The W.E.S.R. Co. is building at its Winnipeg shops 5 large double-truck open motor cars, and will probably build all of its cars in future in Winnipeg.

The American Locomotive Co. has issued a handsome booklet, in English and French, giving some details of its different works; a list of the railways for which it has built locomotives, the principle of classification of lo-

Baldwin Locomotive Works May 2, 1903.



COMPOUND MOGUL LOCOMOTIVE, BUILT FOR THE QUEBEC AND LAKE ST. JOHN RY. BY THE BALDWIN LOCOMOTIVE WORKS.

Jct., and their capacity greatly increased. At Brownville Jct. an electric power plant is to be installed, and at McAdam Jct. a 100-ton track scale will be installed. Sidings are to be greatly increased in length, a large number of trestles are to be filled and a number of wooden structures are to be replaced by permanent masonry or steel bridges.

The St. John city council has decided to repair the wharves at berths 3 and 4 at West St. John, damaged by the recent fire, and a proposition will be considered to make the warehouses two stories, instead of one story high, the upper story at warehouse no. 4 to be used for the handling of passenger traffic until a special passenger dock along the Beacon bar is constructed, after which the upper story of shed 4 will be available for the receipt of inward freight, and the lower storey for the handling of export freight.

EASTERN DIVISION.—At Montreal extensive improvements are to be made. The yards at Place Viger and at Outremont are to be enlarged, and the tracks at Hochelaga and Montreal Jct. rearranged. The facilities at Sherbrooke are to be greatly improved by the rearrangement and extension of yard tracks, the addition of four stalls to engine-house and the completion of a new coaling station. The double track between Farnham and Brigham Jct. will be completed, and a new 100-ton track scale installed at Farnham. About 100 miles of ballasting is to be done

manner. Extensive improvements will be made in filling or replacing present trestles by permanent masonry or steel bridges.

CENTRAL AND WESTERN DIVISIONS.—A 400,000 bush. elevator will be constructed at Port Arthur. The annexes to elevators B and D at Fort William and the new coal handling plant, where coal can be discharged directly into cars or storage, or vice versa, at the rate of 500 tons an hour, will be completed. The improvements contemplated at Winnipeg are extensive. It is proposed to construct a new passenger station and hotel, to remodel the yard, increasing its capacity to 5,000 cars; construct an eight-track subway at Main St., build a new 40-stall engine-house with a 70 ft. turntable, a modern coaling plant and a cinder and sand hoisting apparatus. At Ignace, Brandon, Broadview, Moose Jaw, Swift Current, Medicine Hat, Kirkella and Regina, as well as other points, extensive improvements in the yard facilities are being made, and new car shops will be erected at Calgary. About 200 miles of 80-lb. rails are to be laid on this division and 200 miles of track are to be rebalasted. The extension of passing sidings to accommodate 60-car length trains will be continued. Many masonry piers and abutments are to be constructed and permanent bridges are to be erected to replace wooden trestles and wooden truss structures.

PACIFIC DIVISION.—Extensive improvements are to be made throughout this divi-

comotives adopted, and a number of illustrations of locomotives recently built for foreign governments and railway companies both in the U.S. and abroad. C.P.R. locomotive 851 is among those illustrated.

The Quebec and Lake St. John Ry. recently added to its equipment two compound mogul freight locomotives, built by the Baldwin Locomotive Works. An illustration of one of them is given on this page. Following are the general dimensions:

Cylinders—Diameter (high pressure).....	14 in.
" " (low pressure).....	24 in.
" Stroke.....	26 in.
" Valve.....	Balanced piston.
Boiler—Diameter.....	64 in.
" Thickness of sheets.....	11-16 in.
" Working pressure.....	200 lbs.
" Fuel.....	Soft coal.
Firebox—Material.....	Steel
" Length.....	108 3-16 in.
" Width.....	42 1/2 in.
" Depth (front).....	67 3/4 in.
" " (back).....	65 1/2 in.
" Thickness of sheets, sides.....	5-16 in.
" " " back.....	5-16 in.
" " " crown.....	3 in.
" " " tube.....	3 in.
Tubes—Material.....	Iron.
" Number.....	263
" Diameter.....	2 in.
" Length.....	12 ft. 6 in.
Heating surface—Firebox.....	166.6 sq. ft.
" Tubes.....	1709.8 sq. ft.
" Total.....	1876.4 sq. ft.
" Grate area.....	31.6 sq. ft.
Driving Wheels—Diameter outside.....	57 in.
" Diameter of center.....	50 in.
" Journals, main.....	9 in. x 10 in.
" " others.....	8 in. x 11 in.

Engine Truck Wheels	Diameter	30 in.
Journals	5 1/2 in. x 10 in.	
Wheel Base—Driving	14 ft. 0 in.	
" Rigid	14 ft. 0 in.	
" Total engine	22 ft. 2 in.	
" Total engine and tender	50 ft. 0 in.	
Weight—On driving wheels	120,010 lbs.	
" On truck	25,220 lbs.	
" Total engine	145,230 lbs.	
" Total engine and tender, about	245,000 lbs.	
Tender—Diameter of wheels	33 in.	
" Journals	4 1/2 in. x 8 in.	
" Tank capacity, U.S. gal.	5,000	
" Imperial gal.	4,170	

The Saxon Engine Works at Chemnitz, Germany, where the C.P.R. is having 20 compound freight locomotives built, were founded by Richard Hartmann, in 1845. Hartmann had for nine years previously carried on the business of building engines and boilers, and the repair and manufacture of machinery for cotton mills. The first locomotive was completed in 1848, T. Steinmetz being the engineer in charge of the works. From that date until 1900, up to which time 2,500 locomotives had been completed. In 1870 the works were transferred to a joint stock company, and in 1897 the capital had been increased to the equivalent of \$3,000,000. The works in 1902 employed over 5,000 persons, up to which date 2,800 locomotives had been delivered. The locomotives turned out included 2,238 single expansion type, 481 2-cylinder compound type and 81 4-cylinder compound type; of which 2,007 were standard gauge and 793 were built to different gauges; while 1,813 were built for German owners and 987 were

shipped to owners in 14 different countries. In addition to locomotives of any construction and gauge, there are made at the works steam engines for all purposes, including electric power stations, machine tools for locomotive shops and railway works, and ship-yards, appliances for the transmission of power and control weighing apparatus for ascertaining

and regulating axle pressure for locomotives and railway carriages. At the Paris Exposition of 1900, a Grand Prize for three locomotives was awarded to the Saxon Engine Works. The catalogue from which these particulars are extracted contains illustrations of over 50 engines of different types turned out by the works.

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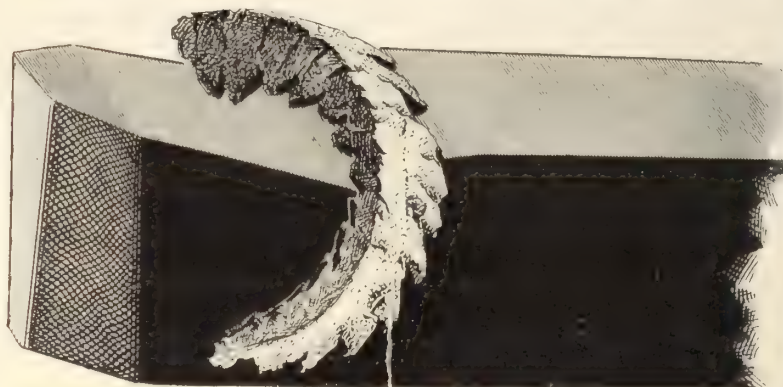
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G.T.R. SEMI-ANNUAL MEETING.

At the semi-annual meeting in London, Eng., April 16, the following report was presented for the half-year ended Dec. 31, 1902. The following summary shows a comparison of the half-year's revenue account with that of the corresponding half-year, ended Dec. 31, 1901:—

Dec. 31, 1901.		Dec. 31, 1902.	
£2,569,805	Gross receipts.....	£2,811,878	10 10
1,757,155	Working expenses of 70.23% compared with 68.38% in 1901.....	1,974,821	7 6
812,650	Net traffic receipts.....	837,057	3 4
12,931	Received from International Bridge Co.....	12,930	12 9
3,080	Interest on Toledo, Saginaw, Muskegon bonds.....	371	7 4
5,843	Interest on Central Vermont Ry. bonds.....	6,506	14 3
61,705	Interest on securities of controlled lines and on St. Clair tunnel bonds acquired by issue of G.T.R. 4% debenture stock.....	61,865	10 6
12,637	Balance of general interest account.....	17,752	2 4
£908,846	Net revenue receipts..	£936,483	10 6

Following are the net revenue charges for the half-year, compared with the corresponding period:

Dec. 31, 1901.		Dec. 31, 1902.	
£77,603	Rents (leased lines).....	£77,603	0 9
466,109	Interest on debenture stocks and bonds of the Company.....	478,720	19 11
67,172	Interest on debenture stock and bonds of lines consolidated with the G.T. Co....	53,032	16 4
7,750	Interest on total issue of Michigan air line bonds..	..	..
618,634	Detroit, Grand Haven and Milwaukee Surplus.....	608,356	17 0
1,930	Advanced to Detroit, Grand Haven, and Milwaukee Co., towards payment of interest on its bonds, under agreements, half-year to Dec. 31, 1902....	2,022	0 7
616,704	Leaving a surplus of.....	610,378	17 7
292,142		326,104	12 11
£908,846		£936,483	10 6

Adding £2,609 3s. 1d. at the credit of net revenue account on June 30, 1902, to the above surplus for the past half-year, the total amount available for dividend is £328,713 16s. 0d., from which the directors recommend the declaration of the following dividends:

Half-year's dividend on 4% guaranteed stock.....	£104,395	17 6
Half-year's dividend on first preference stock.....	85,420	15 0
Half-year's dividend on second preference stock.....	63,210	0 4
Dividend of 1% on third preference stock.....	71,646	7 2
	£324,673	0 0

leaving £4,040 16s. 0d. to be carried forward to next half-year's accounts.

Following is a comparison of the receipts for the half-years ended Dec. 31, 1902 and 1901:

Description.	1902.	1901.	Incr'se	Decr'se.
Passengers.....	£ 844,717	£ 834,662	10,055	..
Mails and express.....	141,736	125,072	16,664	..
Freight and live stock.....	1,755,488	1,539,457	216,031	..
Miscellaneous ..	69,937	70,614	..	677
	2,811,878	2,569,805	242,073	..

TRAFFIC STATISTICS.

	Increase.	Decrease.
1901.	4,446,614	241,037
1902.	4,687,651	..
Passengers carried.....	3s. 9d.	1d.
Average fare per passenger.....	5s. 7½d.	..
Tons of freight and live stock.....	6,148,530	682,106
Average rate per ton.....	5s. 8½d.	1d.
Tons carried one mile.....	1,170,037,355	166,653,149
Earnings per train-mile.....	7s. 11d.	1s. 1½d.

The average rate per ton per mile on the entire freight business was 0.64 of a cent, as in the corresponding half-year.

The working expenses, excluding taxes, were £1,937,527, or 68.91% of the gross receipts, compared with £1,723,278, or 67.06% in the corresponding half-year; an increase of £214,249, or 1.85%.

Following is a comparison of the revenue expenditure, including taxes, for the half-years ended Dec. 31, 1902 and 1901:—

Description.	1902.	1901.	Incr'se.	Decr'se.
	£	£	£	£
Maintenance of way, and structures.....	558,502	496,987	61,515	..
Maintenance of equipment.....	310,420	317,935	..	7,515
Conducting transportation.....	1,005,716	847,985	157,731	..
General expenses.....	62,889	60,371	2,518	..
Taxes.....	37,294	33,877	3,417	..
Total.....	1,974,821	1,757,155	217,666	..
Percentage of gross receipts.....	70.23	68.38	1.85	..
Expenditure per train-mile.....	50 64d.	48.50d.	2.14d.	..

The exceptional increase of the ratio of working expenses is mainly attributable to the abnormal price of fuel, resulting from the great and prolonged coal strike in the U.S., from which the G.T.R. draws the greater proportion of its supply. The increase in the half-year under this head was £92,000, of which £41,000 was in Dec.

The train mileage of the half-year compares with that for the half-year ended Dec. 31, 1901, as follows:—

Description.	1902.	1901.	Incr'se.	Decr'se.
Passenger.....	3,759,606	3,673,824	85,782	..
Freight.....	5,151,052	4,478,410	672,642	..
Mixed trains.....	448,258	542,759	..	94,501
Total.....	9,358,916	8,694,993	663,923	..

The G.T.R. gross receipts for the half-year show an increase of £242,073, or 9.42%; the working expenses, including taxes, an increase of £217,666, or 12.39%. The train mileage shows an increase of 663,923, or 7.63%.

There has been a decrease of 3 miles in the length of lines worked by the company, caused by the taking up of the remaining portion of the rails on the Chemong branch.

The outlay on capital account for the half-year was £135,783 11s. 6d., the principal items being £112,303 6s. 9d., for double-tracking the line between Hamilton and Niagara Falls,

and Whitby and Port Hope, and £16,552 19s. 10d. for additional land at Toronto, Hamilton, Midland, etc., for the improvement of terminal and traffic facilities. There has been credited to this account £5,200 12s. 1d. principally in respect of premium received on the sale of 4% debenture stock, reducing the total charges to capital account for the past half-year to £130,582 19s. 5d. Four per cent. debenture stock for £85,997 was issued during the year to complete the amount necessary to provide for the repayment of £522,200 Northern Ry. 5% 1st mortgage bonds, which matured on July 1, 1902.

No additions to the rolling stock at the expense of capital were made during the half-year. Thirty-three freight engines, 25 passenger cars, 1,000 box cars, and 687 platform cars have been built in the company's shops, and 355 box cars purchased during the half-year on revenue account, and on Dec. 31 there remained £87,815 at the credit of the engine and car renewal funds, applicable to future renewals.

The doubling of the line between Hamilton and Niagara Falls has been completed, and is in operation with the exception of a short distance between St. Catharines and the Welland canal, which will be shortly completed. The completion of the doubling of the track between Montreal and Toronto (Whitby to Port Hope) has been delayed owing to the scarcity of labor and the difficulty in obtaining materials; but about 9 miles east of Whitby has been completed, and it is anticipated that the remaining 24 miles will be finished during the ensuing season.

The renewal of bridges between Montreal and Hamilton, Toronto and Sarnia, and on the Southern division, has been somewhat delayed by the same causes as the doubling of the track referred to above, but it is hoped that more rapid progress will be made during the current year. In addition to the half-yearly proportion of the cost of the renewal of these bridges, £30,000 has been specially charged against revenue, and credited to the renewal of bridges account in the accounts of the past half-year.

A bill has been introduced into the Dominion Parliament, and is now under consideration, authorizing the company to increase the 4% guaranteed stock from £5,220,000 to not exceeding £10,000,000.

A bill has also been introduced under the auspices of the G.T.R.Co. for the incorporation of a company with powers to construct a railway through the Northwest Provinces of Canada to the Pacific, which it is proposed to work in connection and under traffic arrangements with the G.T.R. Co.

The gross receipts of the G.T. Western Ry. Co. for the half-year were £496,642, an increase of £54,139, and the working expenses were £426,743, an increase of £54,841, leaving a net profit of £69,899, against £70,601, a decrease of £702, compared with the corresponding period of 1901. The net revenue charges for the half-year were £69,281, against £60,010, so that there was, on Dec. 31, a net revenue credit of £618, which is carried forward, as compared with £10,591 for the corresponding half-year of 1901. The number of passengers carried during the half-year was 766,250, an increase of 55,037, or 7.74%; and the passenger train receipts, including mails and express receipts, were £168,384, an increase of £18,786, or 12.56%. The freight moved during the half-year was 1,309,181 tons, an increase of 150,809, or 13.02%, and the receipts from this traffic were £328,039, an increase of £35,337, or 12.07%.

The gross receipts of the Detroit, Grand Haven and Milwaukee Ry. for the half-year were £128,575, an increase of £4,396; the working expenses were £93,551, an increase of £8,482; leaving a balance of £35,024, against £39,110, and showing a decrease in net revenue of £4,086, compared with the corresponding half-year of 1901. The net

revenue charges for the half-year were £37,046, against £37,180 in 1901, so that there was a net revenue deficiency of £2,022, as compared with a surplus of £1,030 for the corresponding period of 1901. The number of passengers carried during the half-year was 394,614, a decrease of 34,699, or 8.08%, and the passenger receipts, including mails and express receipts, were £57,162, an increase of £130, or 0.23%. The quantity of freight moved was 363,597 tons, a decrease of 6,851, or 1.85%; and the receipts from freight traffic were £70,158, an increase of £5,361, or 8.27%.

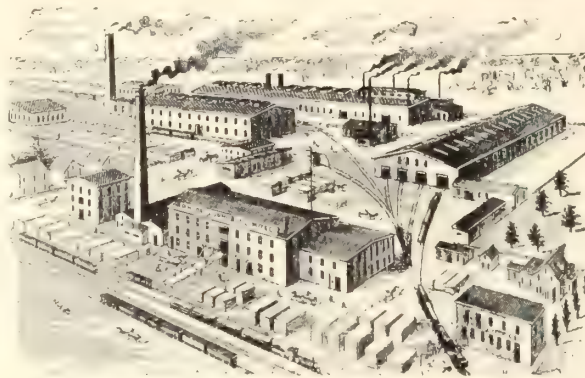
The retiring directors are G. von Chauvin, Col. F. Firebrace, A. W. Smithers, and Sir W. L. Young, who offer themselves for re-election. The directors report the death of G. B. Newton, one of the auditors in London, whose term of office would have expired at the forthcoming meeting. H. C. Newton has been appointed to fill the vacancy, and has audited the accounts for the past half-year. He offers himself for election by the proprietors. W. M. Ramsay, one of the auditors in Canada, retires by rotation and offers himself for re-election.

The following are extracts from appended REPORTS OF OFFICIALS.

The Chief Engineer reports that the charges for maintenance and renewals east of the Detroit and St. Clair rivers, and on the Detroit and Michigan Air Line, and Cincinnati, Saginaw and Mackinaw divisions, in Michigan, for the year 1902, were \$390,005.58 in excess of those for the preceding year. Grouping the charges for repairs of roadway, ballast and ballasting, clearing snow, renewals of rails and ties, and adding to these their proportion of the cost of superintendence, the aggregate charges for maintenance of way were \$2,077,982.67 in 1902, against \$2,077,529.72 in 1901, the rates

per mile being, respectively, \$584.03 and \$583.90. Apart from repairs and renewals of buildings and fixtures, for which there was an increase in 1902, compared with that of 1901, of \$401,475.41, the charges for 1902 show a decrease of \$11,469.83. For the purpose of

obtaining a very much better alignment and easier gradients than those on that part of the existing railway between Port Hope and Darlington, Ont., a section of double-track 19.61 miles is under construction. Between Jordan and Niagara Falls all that is required for the



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completion of the second track is a small amount of bridge work, which is in progress. The earthwork of the Brantford and Lynden connection is almost completed. Very little work remains to be done upon the opening in spring. The replacement of old iron bridges, including three draw-bridges, by heavy steel structures is still in progress. These renewals are between Belleville and Toronto; between Toronto and Niagara Falls; and between Buffalo and Glencoe. New stations have been built at Portland, South Durham, Montarville, Warwick, Ste. Therese, Uptergrove, Stayner, Foxboro, Grimsby, Petrolia, Goderich, Vosburg, Glencoe, and Welland. The materials used for renewals and repairs of main tracks and sidings were:—

New steel rails in main tracks, 28,381 tons; re-rolled steel rails in main tracks, 1,140 tons; partially worn steel rails laid in branch lines and sidings, 19,433 tons; new ties in track, 1,189,587 tons; ballast, 143,919 cubic yds.

The Superintendent of Motive Power reports expenditure, mileage, etc., as follows:

Half-year ended.	Expenditure.	Train Mileage.	Rate of Expenses per Mile.		
			Train	Engine	Car
Dec., 1902...	Dollars, 3,238,129	9,358,916	Cts. 34.60	Cts. 27.21	Cts. 2.01
" 1901...	2,671,012	8,694,993	30.72	24.75	1.79

An increase of \$567,117, or 21.23%, compared with an increase in train miles of 663,923, or 7.64%.

	Passenger Trains.	Freight Trains.	Mixed Trains.
The average number of cars moved per train was.....	4.5	27.2	9.5
And for the corresponding period.....	4.6	28.2	10.4

During the half-year 25 engines were scraped or sold; 33 mogul compound freight engines were turned out new at the company's works, Point St. Charles. The actual stock at Dec. 31, 1902, was 798 engines, against the official figure of 803.

The comparative cost of repairs per train, engine and car mile was:—

	Repairs and renewals of Locomotives.		All repairing charges, including shop machinery, tools, and marine equipment, etc.	
	1902.	1901.	1902.	1901.
Train ..	Cents. 6.32	Cents. 7.03	Cents. 8.23	Cents. 8.63
Engine.	4.97	5.66	6.47	6.95
Car ...	0.37	0.41	0.48	0.50

The Superintendent of Car Department reports expenditure, mileage, etc., as follows:

Half-year ended.	Cost of repairs and renewals.	Total Miles run by Cars.			Cost per Mile.
		Passenger.	Freight.	Total.	
Dec., 1902...	Dollars, 10,363	17,894,799	143,464,365	161,359,164	Cts. 7.91
" 1901...	79,222	18,350,246	130,634,938	148,985,184	9.17

A decrease in expenditure of \$56,929, or 7.14%, with an increase in car miles of 12,373,980, or 8.31%.

At cost of revenue 1,000 box, 587 flat, 100 Gondola, 5 first class, 10 second class, and 10 baggage cars were built new, and 4 caboose, 2 flat and 1 cinder car were rebuilt at the company's shops; 355 box cars were purchased during the half year.

The revenue account for the half-year was as follows:—

RECEIPTS.									
	£	s.	d.	£	s.	d.	£	s.	d.
Passengers...				849,630	5	3			
Less—									
International									
Bridge tolls.	1,264	17	0						
St. Clair tunnel tolls...	3,647	17	7						
				4,912	14	7			
Mails and express							844,717	10	8
Freight and live stock...							141,735	14	8
Less—									
Cartage, etc..	49,386	18	1						
International									
bridge tolls..	8,529	4	11						
St. Clair tunnel tolls....	16,623	15	4						
				74,539	18	4			
							1,755,488	6	4
Miscellaneous receipts, rents, tolls, etc.									
							69,936	19	2
							£2,811,878	10	10

EXPENDITURE.					
	£	s. d.		£	s. d.
Maintenance of way and structures.....	558,501	12 7			
Maintenance of equipment.....	310,419	12 1			
Conducting transportation	1,005,716	7 9			
General expenses	62,889	1 11			

Total working expenses	68.91%	1,937,526	14 4
Taxes	1.32%	37,294	13 2
		70.23%	1,974,821 7 6

Balance to net revenue account	837,057	3 4
	£2,811,878	10 10

Dec. 31, 1901.	Statement of Train Mileage.	Dec. 31, 1902.
3,673,824	Passenger trains.....	3,759,606
4,478,410	Freight trains.....	5,151,052
542,759	Mixed trains.....	448,258
8,694,993		9,358,916

A London cablegram says the meeting was a crowded one. Sir C. Rivers Wilson, in moving the adoption of the report, referred to the heavy increase in the coal bills. The company bought 50,000 tons of coal in England in Jan., and even now was carrying on from hand to mouth, but relief was expected by the end of April. The general prosperity of Canada also entailed heavy expenses on account of materials, pay roll, labor, enlarged yard accommodation and increased rolling stock. A large expenditure was to be made at Bonaventure station, Montreal, in roofing all the platforms, and provision was being made for the cost of this work from the revenue. In regard to the proposed new issue of guaranteed stock he explained that it was for capital purposes as required from time to time instead of issuing 4% preference stock. He added it should have a good effect upon the credit of the company. There had been some misapprehension, but as to the large amount issued there need be no cause for alarm. The directors have no intention of issuing all at once, but from time to time. As in the case of the 4% preference, the directors asked a large amount in order to obviate necessity of going so frequently to the Canadian Parliament. It was better to have a large reserve. Regarding the G. T. Pacific Ry., he said the G.T.R. in self-protection

must share the new traffic in the Northwest. He hoped Sir Wilfrid Laurier would recommend a liberal treatment of the scheme by Parliament. If the terms were arranged satisfactorily he would submit the scheme to the shareholders. Referring to the prospectus of the G.T.R. issued in 1853, he said the resources of Canada were so great that it was not at all impossible to dream that a 1 1/2% dividend on each share of the capital stock would be realized in future.

The report and statements of account were adopted, and the directors whose term of office had expired were re-elected.

Dominion Atlantic Ry. Company.

The seventh annual meeting was held in London, Eng., recently. C. F. Kemp, the Chairman, in moving the adoption of the report, said that underlying the figures were some facts to which the shareholders should attach due importance. The company has suffered in the past year from two causes—the serious falling off in the tourist traffic, owing to the unfavorable weather, which also practically destroyed about two-thirds of the apple crop, on which the line depended very largely during the autumn months and the early part of the year. Nevertheless, the result of the year's operations had been on the whole satisfactory. Passenger business, in spite of what was regarded as an unsatisfactory tourist experience, had gone up £2,636, while, notwithstanding the great and serious absence of fruit traffic, merchandise receipts have decreased by £4,136. There was thus on the year a comparative decrease of £1,500 only. The directors thought they might well claim this to represent a satisfactory sign of fair development in general trade. He never liked to prophesy, but he thought they might look forward to more satisfactory results during the current year, especially if the weather conditions proved normal. The recent decreases in the current year has been due to the absence of lake fruit shipments. There had been a considerable saving in expenditure. On maintenance of way the outlay had been £1,000 less, and there had been a decrease of £1,700 in the locomotive power expenses, principally attributable to the saving in coal and in working the engines. The Manager in Canada made some very advantageous forward contracts for coal. From the working of the railway and the much better position in which the property now was as compared with a short time ago, the directors were satisfied that the policy followed by them had been a wise one, and that it would ultimately result in considerable benefit to the proprietors. The railway had been efficiently maintained. It was in thoroughly sound and good working order. The financial position of the company was also satisfactory. As directors they could not have received more cordial support than they had continuously experienced at the hands of their stockholders.

Answering questions, the Chairman stated that £21,000 was already in reserve on account of the depreciation on steamers, and it was proposed to add £7,000 to this.

The report was adopted, and a dividend of 2% on the preference stock was declared.

P. Gifkins, General Manager, who was present, from Kentville, N.S., said the report gave unmistakable evidence, in his opinion, that the trade and prosperity of their territory were steadily advancing. They had been compelled to place orders for new rolling stock. The country which they served had everything to attract and retain business—a fine fertile soil, splendid mineral resources, educational facilities second to none, and, above all, a race of sturdy stock and independent character.

Canadian Northern Ry. Construction.

Port Arthur Easterly.—The survey parties working during the winter had in view the eastern extension of the line, and during their operations covered about 200 miles of country. The parties consisted of: No. 1, F. A. Creighton, J. M. Campbell, J. Congdon and V. S. L. Davis. No. 2, J. P. Chalmers, J. R. Mackenzie, G. W. McMillan, —Gayfer and —Whitney. The office in Port Arthur was in charge of G. B. Hughes. (April, pg. 129.)

Port Arthur Elevators.—The C.N.R. elevators at Port Arthur comprise the wooden elevator built in 1901 and completed early in 1902, having a capacity of 1,500,000 bush., and the new tile tank storage elevator recently completed, with a capacity of 2,200,000 bush., giving a total capacity of 3,700,000. The wooden building is constructed on piles and concrete piers, is 239 ft. long and 157 ft. 6 in. high from foundation to gables. The foundations were built on 4,000 piles, and the structure contains 2,349,000 ft. of lumber. The grain is stored in tanks, having a capacity of 10,000 bush. each, being conveyed from the cars in 10 lofters or legs, each having a capacity of 10,000 bush. an hour, and there are also 10 shipping spouts with an equal capacity. The scales have a capacity of 85,000 lbs. The tile tank storage elevator is adjoining and consists of 80 circular tanks, 21 ft. in diameter and 85 ft. deep, the spaces between the rows of bins, 63 in number, being fitted up as bins. These bins are also erected on pile and concrete foundations. Both structures are worked from the one power house, in which is a 750 h.p. engine. The buildings are supplied with a complete installation of electric light and fire extinguishing apparatus. The tile tank storage elevator is the first of its kind erected in Canada. An illustration of these elevators appeared on pg. 129 of our April issue.

Winnipeg Terminals.—Until arrangements have been completed with the city council in regard to the projected closing of Broadway, between Main st. and the Red river, nothing

definite is likely to be arranged for the construction of the proposed new station and hotel. Plans have been prepared for both station and hotel, to be erected on the southeast corner of Broadway and Main st., in Fort Garry park, recently purchased from the Hudson's Bay Co. (April, pg. 129.)

Construction in 1903. W. Mackenzie, President, recently stated that 40,000 tons of rails had been contracted for, for delivery this season, and that this quantity was sufficient to lay 400 miles of track. It is estimated that between 600 and 700 miles of line will be constructed during the year. The principal mileage will be the extension of the main line from Grand View, Man., Battleford, Sask., being the point it is expected to reach. It is also intended to complete 70 miles of the extension from Erwood to Melfort, Sask., and possibly further on towards Prince Albert, Sask., and construct a considerable proportion of the mileage which the Western Extension Co. has agreed with the Manitoba Government to construct this year. By arrangement with the Government the company may be granted an extension of time to complete these lines.

Emerson Branch.—Construction is expected to be proceeded with on this branch this year. The company is under agreement with the Manitoba Government to extend it to 20 miles east of Emerson this season, and

it is intended ultimately to carry it to a junction with the main line near Vassar or Sprague. (April, pg. 129.)

Greenway Southwesterly.—This branch, 40 miles southwesterly from Greenway, on the Morris-Brandon branch, is expected to be proceeded with, and will probably be completed this year. (April, pg. 129.)

Hartney to Virden.—Construction on the continuation of the Hartney extension of the Morris-Brandon branch, is expected to be proceeded with this season. (April, pg. 129.)

Portage la Prairie Southwesterly.—The construction of this branch, for which the Manitoba Legislature has guaranteed bonds to the extent of \$10,000 a mile for 40 miles, is expected to be gone on with this year. (April, pg. 131.)

Carberry to Neepawa.—It is expected that this 20 mile branch, connecting the Neepawa branch with Carberry, will be constructed this year. (April, pg. 131.)

Rosburn Branch.—The 65 miles necessary to complete the 80 miles from Rosburn Jct. to the western boundary of the province, is expected to be completed this year. (April, pg. 131.)

McCreary Branch.—Grading is expected to be completed on this branch to McCreary station on the line to Erwood, and track to be laid at an early date. (April, pg. 131.)

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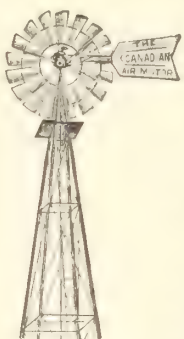
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DAND.

IF HENRY CRAINGE DAND, son of the late James Dand, of Morwick, in the County of Northumberland, England, and who was last heard of as Engineer on board the ship "China," about the year 1872, will communicate with us, he will hear of something to his advantage.

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Grand View Extension.—It is expected that construction will be pushed through to Battleford, Sask., about 300 miles from Grand View, Man. During 1902 grading was completed on 38 miles from Grand View and in places beyond, towards the Manitoba boundary. All the contracts for this construction were expected to be placed by the end of April. Plans have been completed for the two bridges to be constructed across the Saskatchewan river, and have been submitted to the Minister of Railways for approval. Mackenzie, Mann & Co. have ordered 10,000 barrels of cement, to be used in the substructures, and contracts have been let for the superstructures. The bridge to cross the south branch of the river will be constructed in the vicinity of Osler, and the crossing of the north branch will be at the Elbow. (April, pg. 131.)

Erwood Westerly.—The extension of the line westerly from Erwood is expected to be carried as far as Melfort, about 50 miles from the point to where grading ceased in 1902, and possibly to Prince Albert, about 180 miles from Erwood. This line is expected ultimately to be extended from Prince Albert to a junction with the main line, now under con-

RAILWAY FENCING.

By R. W. Leonard, M. Can. Soc. C.E.

The subject of railway fencing, especially of determining the most economical and efficient type, does not appear to have received the consideration that the first cost and cost of maintenance would seem to justify. The many different kinds of fencing that one sees in common use in farming and woodland districts in Canada, where cattle are allowed to roam at large, may be estimated to cost all the way from \$300 to \$1,500 or more per mile, and the most expensive is not always the most efficient, durable or economical to maintain. The continued decrease in the supply of suitable timber, and the consequent increase in cost, should make this subject of keen interest to railway companies and to farm land owners. In Canada the fencing of a railway in country districts is necessary for the purpose of protecting the trains from danger arising from running down trespassing cattle or other domestic animals, or of protecting the company from damage suits arising from resulting injury to such animals, and for the protection of the railway from the accumulation

Where a fence 8 ft. high is insufficient to store the snow, it is generally better to use a temporary board hurdle fence placed back 50 or 100 ft. in the field than to increase the height. Fences built with horizontal boards so spaced do not interrupt the view greatly, and do not cause that unpleasant dazzling effect on the eyes of travellers. Where the ground rises or falls, the fence should maintain its height by adding a board to or dropping one off the top, giving the appearance of steps. A vertical batten on the boards at each post greatly strengthens the fence and hides joints. There are various forms of portable board hurdles for snow protection; probably the best is in the form of an inverted Y with widely spaced horizontal boards fastened to vertical frames, which will fold flat for transportation and summer storage. In prairie sections snow is stored clear of the rails by low embankments or hedges taking the place of the fences, or the snow is prevented from accumulating on the track by flattening the slopes of the cuttings.

Barbed wire has been very extensively used, but is justly condemned, as being destructive to stock and inefficient unless used in combination with boards or rails, which



CANADIAN NORTHERN RY. INTERNATIONAL BRIDGE OVER THE RAINY RIVER, BETWEEN RAINY RIVER, ONT., AND BEAUFORT, MINN.

struction from Grand View, via Battleford, (April, pg. 131.)

Battleford to Edmonton.—Arrangements have been made with Rev. S. C. Barr, under whose direction about 2,000 British immigrants have recently gone into the country, for the grading of 100 miles near the lands set apart for the colony.

Survey parties under A. G. McFarlane and J. Armstrong, the latter of whom is principal engineer in charge of surveys, are working at different points between Edmonton and White Whale Lake, 38 miles.

Edmonton.—The bylaw to raise \$15,000 towards the purchase of 68 acres for a site for station, yards and workshops from the Hudson's Bay Co., has been passed by the taxpayers. (April, pg. 131.)

The Bell Telephone Co.'s calendar for 1903 gives a plan showing the long distance lines comprised in the Ontario department, which extends from Kingston to Buffalo, N.Y., and Detroit, Mich., and covers the Province from the lake boundaries to Bracebridge. The lines of the North American Telegraph Co., which serve a section of the country northward from the lake shore between Kingston and Cobourg, are shown in red.

of snow. With the modern heavy locomotive and rolling stock, there is little danger to trains to be apprehended from striking the smaller domestic animals, except perhaps pigs, which are generally kept by the owners within a limited space securely fenced, largely because they are difficult to keep within fences which will hold securely other domestic animals. The cost to the railway companies for injuring sheep or pigs is probably so small that it can fairly be considered not economical to try to fence against them in most localities.

It is perhaps unnecessary to consider rail fences, which are probably now being built by railway companies, owing to their cost and liability to destruction by fire, and tendency to carry fire through the woods. Board fences with posts spaced about 8 ft. apart will perhaps be continued in special locations, such as through towns and close to farmers' buildings, where they are necessary to protect their smaller animals. Post and board fences will also continue to be used as a protection from snowdrifts. For such purpose it is often desirable to build them much higher than for cattle protection. I prefer to use cedar posts, spaced eight feet c. to c., with the boards nailed on horizontally, breaking joints and spacing about 3 ins. apart, selecting the widest boards for the bottom,

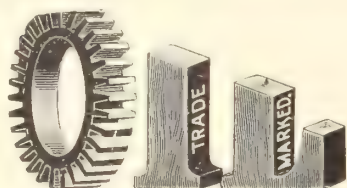
necessitate close spacing of posts, and consequent expensive construction and maintenance. Diamond-shaped woven wire fences and woven lath and wire fences with vertical laths are open to the same objections regarding cost and efficiency. There are a number of different patterns of woven wire fence with horizontal wires connected by vertical wires, woven either in the factory or in the field, which possess varying degrees of excellence, and are rapidly taking the place of the other forms above mentioned. In considering the value of each fencing, the following qualities are important:—(a) Efficiency in stopping horses and cattle without injury to stock or fence; (b) capability of adjusting itself to changes of temperature without unduly straining posts or wires in cold weather; (c) capability of yielding to weight of snow settling during a thaw, fallen trees, or persons climbing over it, without permanent injury; (d) liability of accommodating itself to inequalities of the ground surface; (e) low first cost; (f) low cost of maintenance. If the horizontal wires are plain straight wires, it is necessary, in order to satisfy b, c, and d, that springs be introduced at frequent intervals, also that vertical wires be not so stiff as to remain kinked or distorted. As the cost of cedar posts and labor is continually increasing and the cost of wire generally de-

creasing, the fence should be of such design as to admit of wide spacing between posts, in order to satisfy e and f. I have for some years used largely a fence woven in the factory, in which the horizontal steel wires are like an elongated cork screw, with light vertical wires, and began some eight or nine years ago to space the posts 25 ft. c. to c. This distance was selected so that intermediate posts might be interpolated if demanded by the Government to comply with subsidy contracts. Such intermediate posts were, however, found unnecessary, and the fences—where posts were properly set—have been eminently satisfactory, and experience has

indicated that on level ground this spacing—with strong posts—could safely and economically be extended to even 50 ft. Spans should, however, be modified to suit local irregularities in the ground surface. I am also of opinion that true economy would be gained on a large percentage of railway fencing by limiting the number of horizontal wires to what is necessary to effectively stop cattle and horses (perhaps seven wires). In considering the effect of such long spans between posts, it must be remembered that the longer the span between fixed points the more nearly do we comply with requirements c, e, and f.

Gates should be strong and light, capable

of being locked when desired, and cheap. These conditions appear to be fairly well satisfied by a frame gate, in which the top and bottom rails are 3 in. x 3 in., end posts 3 in. x 4 in., centre posts and braces 2 in. x 3 in., pine or spruce, fastened together with wire nails, and strongly bound by woven wire fencing tightly stretched and securely stapled to all the members. Hook and eye hinges should be used to allow the gate to be lifted off in times of deep snow, and the gate should be fastened with a strong light wire chain (with hook) long enough to encircle the post even when it has drawn away a few inches on account of the strain of the wire fencing.



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MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1901, gives the following statistics for the year:

CROPS.

ACRES.	AVERAGE YIELD.	TOTAL.
Wheat.....2,011,835	25.1 bus.	50,502,085 bus.
Oats.....689,951	40.3 "	27,796,588 "
Barley.....191,009	34.2 "	6,536,155 "
Potatoes..24,429	196. "	4,797,433 "

STOCK

Number of stock in the Province, July 1, 1901:	
Horses.....142,705	Sheep.....22,960
Cattle.....1,168	Pigs.....94,680
Value of Dairy products.....\$926,317	

18,375 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1899—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers expect this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,600,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

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FARMING IN THE SOUTH.

The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free, Circulars as they are published from month to month.

The Local Agent is asked to note Cheap Rates to all the North West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. December folder is a good one. Get it!

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The discussion of the subject of railway fencing is not complete without considering cattle guards. The danger of wrecking a train in which a pair of wheels may be derailed has led to the abolition on all good roads of the open pit cattle guards, in which the rails are laid on the stringers. The danger of such guards to trains is not much reduced by placing ties and guard rails on the stringers, as cattle and horses are frequently caught in them by the legs, and in such positions are a very serious menace to the heaviest locomotives. I know of no surface guards that will actually stop horses or cattle when seeking food, when driven by men or dogs, or when frightened by a train. There are a number of excellent surface cattle guards (both metal and wood) in the market, and I favor the wooden ones with inverted wedge-shaped longitudinal-slats, painted white for the purpose of exaggerating in appearance the depth between the slats. These, with white painted board wing fences and return fences to the right-of-way fences proper, form a very efficient cattle protection. In the case of oblique public road crossings, I have been in the habit of locating the cattle guards and wing fences just clear of the public road boundary, and carrying the return fences back from the middle of the cattle guards to the right-of-way side fence by the shortest straight line. This excludes from the fenced-in-right-of-way two small triangles, but gives a space for frightened animals to turn in and clear the track, if caught approaching the track in the face of a train. It is probable, in my opinion, that the lengthened spans which will probably be used in fencing, and which demand heavier posts, may ultimately lead to the use of some form of iron post set in concrete base or some design of hollow concrete steel post when the cedar available becomes more expensive. Under present conditions, it is highly desirable to set the tension posts (at gates and corners) in a pyramidal concrete base, as the cost is low compared with the advantages gained in increased strength and durability, and in preventing heaving from frost. There is such a diversity of opinion evidenced by the large number of different styles of fencing, gates, and cattle guards in common use in the country, that I hope to elicit a discussion on this paper that will prove of value.

The foregoing paper was read at a recent meeting of the Canadian Society of Civil Engineers.

Marconi System for Steamships.—The American Line, which has had the Marconi Wireless Telegraph system in operation for some time on the S.S. Philadelphia, has issued an illustrated circular, with cuts of the Marconi station and of the St. Louis at sea, announcing its intention to equip the St. Louis, the St. Paul and the New York at once with the system. In addition to the facilities offered to passengers in the way of sending or receiving telegrams while at sea, arrangements have been made with news companies for supplying current news, which will be sent by wireless telegraphy to east-bound steamers from the Poldhu station on the coast of England, and to west-bound steamers from the Siasconset station, Nantucket. The steamers of the lines when fitted with the wireless telegraph apparatus will be practically in continuous communication with either shore stations or with passing steamers.

The C.P.R. Club at Toronto Jct., Ont., is progressing very satisfactorily. Mr. Brumbaugh, Inspector of Steam Heating, C.P.R., Montreal, recently read a paper before the club on the heating and lighting of cars, and L. R. Johnson, Assistant Superintendent of Rolling Stock, C.P.R., Montreal, lectured on a trip in China, illustrated with views.

Dominion Subsidies to Railways.

The following subsidies were paid during the year ended June 30, 1902:

Atlantic and Lake Superior Ry.	\$ 14,800 00
Canadian Northern Ry.	939,891 00
Thousand Islands Ry.	5,440 00
Ottawa Northern and Western Ry.	8,192 00
C.P.R. Crow's Nest pass.	22,946 00
C.P.R. Pipestone branch.	67,200 00
Inverness and Richmond Ry.	86,800 00
Quebec bridge.	167,430 00
Montreal and Province Line Ry.	58,560 00
York and Carleton Ry., N.B.	18,336 00
Algoma Central and Hudson Bay Ry.	380,624 00
Lake Erie and Detroit River Ry.	137,120 00
Atlantic and Northwestern Ry.	186,600 00

Total.....\$2,093,939 00

The following additional subsidies were paid from July 1 to Dec. 31, 1902:

Great Northern Ry.	\$ 37,777 20
C.P.R. Crow's Nest pass.	60,000 00
C.P.R. West Selkirk branch.	81,650 00
C.P.R. Dymet branch.	22,336 00
Inverness and Richmond Ry.	55,000 00
Quebec bridge.	108,840 00
Atlantic and Lake Superior Ry.	46,500 00
Algoma Central and Hudson Bay Ry.	202,912 00
Cape Breton Ry.	65,280 00

Total.....\$ 680,295 20

Following is a statement of the subsidies paid since July 1, 1883:

Year ended June 30, 1884	\$ 208,000 00
" " 1885	403,245 00
" " 1886	2,171,249 00
" " 1887	1,406,533 00
" " 1888	1,027,041 92
" " 1889	846,721 83
" " 1890	1,678,195 72*
" " 1891	1,265,705 87*
" " 1892	1,248,215 93*
" " 1893	811,304 07*
" " 1894	1,229,885 16*
" " 1895	1,310,549 10*
" " 1896	834,745 49*
" " 1897	416,955 30*
" " 1898	1,414,934 78*
" " 1899	3,201,220 05*
" " 1900	725,720 35*
" " 1901	2,512,328 86*
" " 1902	2,093,939 00*

\$24,806,580 37

*In these amounts the subsidy of \$186,600 a year payable to the Atlantic and North-west Ry. Co. for 20 years from July 1, 1889, is included.

To the above there have to be added the following exceptional subsidies:

Canada Central Ry., paid between 1878-83.	\$ 1,525,250 00
C.P.R. extension from St. Martin's Junction to Quebec, paid in 1885.	1,500,000 00

Total subsidies paid from Consolidated Fund to June 30, 1902.....\$27,831,830 37
The main line subsidy to the C.P.R. was paid from capital, amounting to 25,000,000 00

Total paid as subsidies.....\$52,831,830 37

The above does not include \$2,394,000, due to the Province of Quebec for the railway between Ottawa and Quebec, which has been transferred to the public debt, and on which interest at 5% is paid, amounting to \$119,700 a year.

The total cost of the Intercolonial Ry. up to June 30, 1902, was \$68,645,852.58. The additions made during the year included: for increased accommodation at Halifax, \$71,928; at St. John, \$111,299; at Sydney, \$77,609; at Stellarton, \$20,488; at Pictou, \$42,661; and at Levis, \$75,341; for increased sidings, \$157,998; for strengthening bridges, \$93,431; for engine houses, \$135,049; for additional rolling stock, including 32 locomotives and 1,302 box freight cars, \$2,066,879; for applying air-brakes to freight cars, \$23,688; for steel rails and fastenings, \$188,190; Strait of Canso ferry, \$293,000; arbitrators' awards, Eastern Extension Ry. in N.S., \$671,836, and in N.B., \$280,692.

The total cost of the Prince Edward Island Ry. up to June 30, 1902, was \$4,599,825.12, there being an addition during the year of \$475,997.94; the principal items being \$272,404.47, on the branch to Murray harbor, and \$177,595.53 for a combined railway and carriage bridge over the Hillsborough river at Charlottetown.

Grand Trunk Ry. Betterments, Etc.

Kingston Subway.—The Railway Committee of the Privy Council has refused to reopen the matter in reference to the order to construct a subway under the tracks at the Montreal st. crossing, just outside Kingston, Ont., and directed the Kingston city council to pay the costs of the day. (Mar., pg. 89.)

Dumfries Siding.—The application to construct a siding from near Dumfries station through the property of the Ontario Portland Cement Co., at South Dumfries, has been granted by the Railway Committee of the Privy Council.

Yonge St. Crossing, Toronto.—The matter of the construction of a bridge over the tracks at the foot of Yonge st. has been before the Railway Committee of the Privy Council on several occasions recently. C. Schreiber, Deputy Minister of Railways, visited Toronto, and in company with G.T.R. and C.P.R. officials, as well as the Mayor and city officials, looked over the site and inspected the plans. The matter is still under consideration.

Toronto Freight Yards.—It is said nothing will be done in the way of laying out the new freight yards between Simcoe and John streets, Toronto, until after June, and it is expected the new buildings will be completed in the fall. (Mar., pg. 89.)

Brantford Deviation.—Grading has been resumed on the deviation of the main line from Lynden to Brantford, and it is expected that it will be ready for operation this year. The portions of the old line between Harrisburg and Paris, via Brantford, which will be used as the new main line, have been relaid with 80-lb. rails. (Mar., pg. 89.)

Stratford.—The Company is reported to have secured options on property adjoining the shops and station at Stratford, and it is locally reported that a new station building is to be constructed on a new site, while other portions of the land will be utilized for the extension of the shops. (Mar., pg. 89.)

Paris to Sarnia Double Track.—It is expected that the double tracking of the line between Paris and London, and Komoka and Sarnia, will be gone on with this year. The section between London and Komoka, which is heavier work, will probably be left till next year.

Hamilton—Niagara Falls Double Tracking.—The swing bridge over the Welland canal has been completed, and the bridge over Ten-mile creek was expected to be completed at the end of April. The whole of the double tracking is expected to be in operation early in May. (Mar., pg. 89.)

May Birthdays.

Many happy returns of the day to Garret Vliet, Assistant Master Mechanic, G.T.R., at Portland, Me., born at Milwaukee, Wis., May 5, 1854.

W. R. Baker, Assistant to 2nd Vice-President, C.P.R., at Montreal, born at York, Eng., May 25, 1852.

S. Barker, M.P., President Muskoka Lakes Navigation and Hotel Co., Hamilton, Ont., born at Kingston, Ont., May 25, 1839.

F. T. Byrne, Commercial Agent, G.T.R., at St. Louis, Mo., born at Albany, N.Y., May 3, 1859.

G. S. Cantlie, Superintendent Car Service, C.P.R. at Montreal, born there May 2, 1867.

C. L. Coon, City Passenger and Ticket Agent, G.T.R., at Buffalo, N.Y., born at Watertown, N.Y., May 20, 1868.

G. H. Dodge, Assistant Treasurer and Superintendent, Levis County Ry., Levis, Que., born at Billerica, Mass., May 14, 1875.

M. Donaldson, General Superintendent, Canada Atlantic Ry., at Ottawa, Ont., born near Edinburgh, Scotland, May 1, 1851.

G. C. Dunn, ex-Chief Engineer, Ottawa, Northern and Western Ry., Pontiac Pacific Jct. Ry., Hull Electric Ry., and Interprovincial Bridge, at Ottawa, born at Quebec, May 13, 1862.

Hon. W. C. Edwards, Timiskaming Steamboat Co., Rockland, Ont., born at Clarence, Ont., May 7, 1844.

J. D. Evans, Engineer Central Ontario Ry., at Trenton, Ont., born at Goderich, Ont., May 27, 1843.

E. T. Galt, President Alberta Ry. and Coal Co., at Lethbridge, Alta., born at Sherbrooke, Que., May 24, 1850.

A. Hardy, General Freight and Passenger Agent, Quebec and Lake St. John Ry., at Quebec, born there May 12, 1855.

W. T. Huggan, Treasurer and Auditor Prince Edward Island Ry., at Charlottetown, P.E.I., born at Halifax, N.S., May 24, 1851.

J. Hunter, Vice-President, Chief Engineer and General Superintendent Esquimalt and

Nanaimo Ry., at Victoria, B.C., born at Aberdeen, Scotland, May 7, 1839.

W. S. Kinnear, Chief Engineer, Michigan Central Rd., at Detroit, Mich., born at Circleville, Ohio, May 25, 1864.

G. A. Parker, Auditor Dominion Atlantic Ry., at Kentville, N.S., born at Walton, N.S., May 1, 1855.

N. J. Power, Auditor of Disbursements, G.T.R., at Montreal, born at Rochester, N.Y., May 19, 1843.

H. B. Sherwood, Superintendent Bay of Quinte Ry., at Napanee, Ont., born at Auburn, N.Y., May 25, 1847.

E. Tiffin, General Traffic Manager, I.C.R., at Moncton, N.B., born at Hamilton, Ont., May 5, 1849.

J. H. Walsh, General Freight and Passenger Agent, Quebec Central Ry., at Sherbrooke, Que., born at Quebec May 12, 1860.

H. K. Wicksteed, Engineer in Charge of

Surveys, Canadian Northern Ry., east of Port Arthur, born at Quebec May 25, 1855.

James Yeo, ex-Roadmaster Intercolonial Ry., Riviere du Loup, Que., born at Bideford, Devonshire, Eng., May 1, 1830.

Railway Track Laid in 1902.—The Montreal Terminal Ry. Co. laid 8.25 miles of track in the city of Montreal, which brings up the total mileage of electric railway track laid in 1902 to 85.291 miles.

The Engineers' Club of Toronto held two meetings in April at which papers were read on "Recent Developments in Acetylene Lighting," by S. H. Chewett, and on "The Waterways of Canada," by R. B. Rogers, of Peterboro', who dealt especially with the Trent canal.

Sir Wm. Van Horne has purchased a 7,000 acre ranch near Tumas, Cuba. His son is at present in charge of the property.

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Manager

C.P.R. Betterments, Construction, Etc.

Bridge Contracts.—Contracts have been placed for the steel superstructures for 242 bridges to replace bridges on different divisions of the line. The Dominion Bridge Co., Montreal, will supply more than half the number, the other orders being divided up among different companies.

Nova Scotia.—Sir Thos. Shaughnessy, on his recent return from England, stated in an interview that no such thing as an extension of the C.P.R. to Halifax had been contemplated. There was a possibility, however, that the C.P.R. would ask the I.C.R. to enlarge the traffic agreement between the two lines. (April, pg. 131.)

St. John Wharves, etc.—An extensive fire occurred at the wharves at West St. John, N.B., April 17, doing damage to the extent of about \$500,000. The damage to the C.P.R. property is estimated at \$35,000, of which \$20,000 is accounted for by the loss of about 2,000 ft. of grain conveyers, about \$10,000 for trestle-work, trippers, etc., and \$5,000 for empty cars. The elevator and stockyard belonging to the company were not damaged, owing largely to the wind carrying the flames in a direction away from them. It is probable that the question of increased wharf accommodation, etc., will be considered in connection with the replacing of the burned equipment. Press reports, a few days previous to the fire, stated that the appropriations for the year did not provide for any further extensive works at St. John, and that nothing more would be done until the wharf accommodation generally was increased.

Place Viger Yards, Montreal.—In connection with the recent purchases of land in the vicinity of Place Viger station, the C.P.R. has asked the Montreal city council to cede to the company all the streets between Notre Dame st. and the river from Place Viger to the jail, as it is intended to expropriate the land, power for which purpose has been obtained from the Railway Committee of the Privy Council. The property owners in the vicinity have asked the council to secure the construction of a bridge over Beaudry st., as a concession for the closing of the five streets asked for by the company. Representatives of the company have been in conference with the Roads Committee of the city council in regard to the matter. (Feb., pg. 52.)

Ontario Division.—Increased siding accommodation is to be provided during the year at a number of points to facilitate the movement of trains, and it is likely that the track accommodation in the London yard will be largely increased. Considerable ballasting will be done on the Toronto and Havelock sections. It is intended to lay about 40 miles of 80-lb. steel rails on the line between Montreal and Toronto, principally on the Toronto and Havelock sections. It is also intended to lay 80-lb. rails on about 20 miles between Embro and London. Several water tanks on the division will also be renewed.

Toronto Jet. Station.—The press reports that a new station is to be erected on the corner of Weston road and Dundas st., this spring, are, we are informed, without foundation.

Drumbo.—A new station is to be erected at Drumbo, Ont., this year.

North Bay Freight Sheds.—The new freight shed, which is nearly completed, is arranged on the four track system, and has accommodation for 50 cars. The extensions to the yard will be completed during the year, and other improvements, including the erection of a new station, an 18 stall roundhouse, a large erecting shop, and a coal handling plant, will be effected. (Feb., pg. 53.)

Massey Copper Mine Spur.—D. M. Brodie, of Massey, Ont., recently stated that a spur

line, $3\frac{3}{4}$ miles in length, would be constructed during the summer from Massey station, on the Sault Ste. Marie branch, to the copper mines. We are informed that this spur will not be built by the C.P.R., but that the International Nickel Co. is likely to build it.

Transcontinental Line Gradients.—In addition to the reduction of gradients on the line between Fort William, Ont., and Winnipeg, it is also intended to reduce gradients on the Cartier section of the Lake Superior division; the Broadview and Swift Current sections of the Central division, and the Shuswap section of the Pacific division. (April, pg. 131.)

Fort William.—A contract is reported to have been let for the construction of a steel coal-handling plant at Fort William, Ont.

Rat Portage Bridge.—The new bridge over the Winnipeg river at Rat Portage is practically completed.

Winnipeg Station and Subway, etc.—Some discussion has taken place between the city council and W. Whyte, Assistant to the President, in respect to resuming negotiations for the erection of a new station, hotel, subway, etc., since the Legislature declined to approve of the last agreement. Nothing, however, has been accomplished. Mr. Whyte is reported as stating that negotiations are off, and a member of the council is reported as saying that he saw no prospect of negotiations being successfully resumed in the near future.

Darlingford, Southwesterly.—We are advised by a Manitoba Government official that the 10 miles of line from Darlingford, on the Pembina branch, southwesterly, which the Manitoba Commissioner of Railways has power to build, will be constructed under an arrangement to be entered into with the C.P.R. Nothing has been announced as to the date when construction is likely to be commenced.

Side Tracks for Elevators.—The grain men at Winnipeg have been notified that the company will construct side tracks on which elevator sites will be located at a number of points, between stations, in Manitoba and Assiniboia.

Manitoba and Northwestern Ry.—We are officially informed that it is intended to extend this line 30 miles this year.

Brandon.—We are advised that it is not the Co.'s intention to erect a grain elevator at Brandon, Manitoba, this year, as recently stated in press reports. (April, pg. 131.)

Pipestone Branch.—We are officially informed that this branch will be extended from Arcola to Regina, Assa., 113 miles, this year. Press reports state that Foley Bros. & Larson, of St. Paul, Minn., have been given the contract for the grading, and will commence work immediately. (April, pg. 131.)

Pheasant Hills Branch.—Construction will be resumed on this branch, and will be continued to mileage 105 from Kirkella, at Newdorp or Pheasant Hills, Assa., this season. Track was laid on 40 miles in 1902, leaving 65 miles to be built this year. A contract is reported to have been let to Foley Bros. & Larson, St. Paul, Minn., who are sub-letting the grading in two and five mile sections. A survey party under A. L. Buck, is reported to have reached Saskatoon, having completed a survey of the projected extension of the line to that point, and a branch south of Last Mountain reserve through the Strassburg settlement. (April, pg. 131.)

Saskatoon.—C.P.R. officials on the Central division are not aware of any intention to construct a round-house at Saskatoon, as recently stated in press reports. (April, pg. 131.)

False Creek, Vancouver.—Surveys have been made with a view of locating a spur line between the Lulu Island bridge and the Cam-

bie st. bridge, to accommodate the industries of the district.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Press reports state that an extension is projected from Glenwood, to Foston, Minn., about 120 miles, with the ultimate idea of reaching Winnipeg. Another report states that the line will be extended to Grena, Man., at which point the C.P.R. has connection with the Great Northern Ry., U.S.A. Sir Thos. Shaughnessy is credited with stating that the "Soo" line officers have for some time been considering building so as to secure a direct connection with Winnipeg.

Canadian Freight Association.

At the 20th annual general meeting in Montreal, April 9, the following officers were elected:—President, W. P. Hinton, General Freight and Passenger Agent, Canada Atlantic Ry., Ottawa; First Vice-President, C. Howe, Assistant General Freight Agent, Michigan Central Rd., Buffalo, N.Y.; Second Vice-President, W. R. MacInnes, Freight Traffic Manager, C.P.R., Montreal; Secretary-Treasurer, Chairman of Committees and Manager of Car service department, J. Earls, Toronto. The following committees were appointed:—

EXECUTIVE COMMITTEE: W. B. Bulling, J. Pullen, W. P. Hinton.

CLASSIFICATION COMMITTEE: W. B. Bulling, S. P. Howard, F. J. Watson, J. H. Hanna, J. Hardwell, W. P. Hinton, T. Marshall, C. Howe, C. A. Jacques, W. Phillips.

FREIGHT INSPECTION COMMITTEE: G. Collins, F. Conway, F. F. Backus, J. Hardwell, C. E. Dewey, M. H. Brown, W. M. Warburton, T. Henry, J. J. Mossman.

CAR SERVICE COMMITTEE: J. B. Morford, M. C. Sturtevant, G. S. Cantlie, W. Woollatt, E. Fisher, J. F. Chapman, J. E. Duval, T. E. Henderson, E. F. Seixas, G. Tombs.

The annual summer meeting will be held at the Manoir Richelieu, Murray Bay, Que., early in July.

The G.N.W. Telegraph Co. last year re-constructed 307 miles of line, and strung 90 miles of new lines. There were used 2,438 miles of iron wire, of which 1,238 miles were strung on the G.N.W. lines, and 1,200 miles on the lines of the G.T.R.; and 742 miles of copper wire. In addition to this the following extensions were made to the company's lines in the Muskoka district of Ontario:—A cable 3-5 miles in length from near Windermere to the Royal Muskoka hotel, and the lines were extended from Port Carling to Bala, thus completing the company's connection to every important summer resort in Muskoka. Extensive improvements are being made in the operating department at Toronto, including a new switch board, with the latest modern devices, new instruments, tables, etc.

The Northern Navigation Co. of Ontario has issued a circular to tourist and city ticket agents stating that 5% commission will be paid this year on its proportion of tickets, but not on amounts accruing to any connecting railway or steamship line. The commission will be paid by Dec. 20 next, if vouchers are sent in by Dec. 10.

The Hampton & St. Martin's Ry. in New Brunswick, according to press reports, is not likely to be operated this year. The Dominion Government is to be memorialized in regard to the matter by the people interested.

The Muskoka Lakes Navigation and Hotel Co., Ltd., has given a chattel mortgage for \$85,000, covering its entire property, to the Canada Permanent and Western Canada Mortgage Corporation.

Steam Shovels	James Cooper.....	Montreal.
	W. H. C. Mussen & Co.....	Montreal.
Steel	James Cooper.....	Montreal.
	B. J. Coghlin & Co.....	Montreal.
	Wm. Jessop & Sons.....	Sheffield, Eng.
	Rice Lewis & Son.....	Toronto.
Steel Buildings	Dominion Bridge Co.....	Montreal.
Steel for Springs	James Hutton & Co.....	Montreal
Steel Plate	Jas. W. Pyke & Co.....	Montreal.
Steel Tires	B. J. Coghlin & Co.....	Montreal.
	James Hutton & Co.....	Montreal
	Latrobe Steel Co.....	Philadelphia, Pa.
	Jas. W. Pyke & Co.....	Montreal.
Structural Metal Work	Dominion Bridge Co.....	Montreal.
	Locomotive and Machine Co. of Montreal.....	Montreal.
	Jas. W. Pyke & Co.....	Montreal.
Switches	Canada Switch and Spring Co.....	Montreal.
Switch Lamps	The Hiram L. Piper Co.....	Montreal.
	The N. L. Piper Railway Supply Co.....	Toronto
Switch Ropes	The B. Greening Co.....	Hamilton, Ont.
Switch Targets	Acton Burrows Co.....	Toronto.
Tanks and Tank Fixtures	Ontario Wind Engine and Pump Co.....	Toronto.
Telegraph and Telephone Office Signs	Acton Burrows Co.....	Toronto.
Tie Plates	B. J. Coghlin & Co.....	Montreal.
Tobacco and Cigars	The Hudson's Bay Company.....	Montreal.
Toilet Paper	The Hudson's Bay Company.....	Montreal.
Tools	Rice Lewis & Son.....	Toronto.
Track Jacks	James Cooper.....	Montreal.
	Duff Manufacturing Co.....	Allegheny, Pa.
	W. H. C. Mussen & Co.....	Montreal.
	A. O. Norton.....	Coaticook, Que.
Track Tools	Canada Switch and Spring Co.....	Montreal.
	James Cooper.....	Montreal.
	Rice Lewis & Son.....	Toronto.
	W. H. C. Mussen & Co.....	Montreal.
Tramway Equipment	James Cooper.....	Montreal.
	W. H. C. Mussen & Co.....	Montreal.
	J. J. Gartshore.....	Toronto.
Trucks (Electric Car)	Baldwin Locomotive Works.....	Philadelphia, Pa.
	Canada Switch and Spring Co.....	Montreal.
Trucks (Warehouse and Express)	Rice Lewis & Son.....	Toronto.
Turntables	Dominion Bridge Co.....	Montreal.
Varnishes	McCaskill, Dougall & Co.....	Montreal.
Vessels	Polson Iron Works.....	Toronto.
Waste	B. J. Coghlin & Co.....	Montreal.
	Rice Lewis & Son.....	Toronto.
	N. L. Piper Ry. Supply Co.....	Toronto.
	The Queen City Oil Co.....	Toronto.
Wheelbarrows	James Cooper.....	Montreal.
	Rice Lewis & Son.....	Toronto.
Windmills	Ontario Wind Engine and Pump Co.....	Toronto.
Window Blinds	The Hudson's Bay Company.....	Montreal.
Wines and Liquors	The Hudson's Bay Company.....	Montreal.
Wire & Wire Rope	Dominion Wire Rope Co.....	Montreal.
	The B. Greening Co.....	Hamilton, Ont.
	Rice Lewis & Son.....	Toronto.
	W. H. C. Mussen & Co.....	Montreal.
	The Wire and Cable Co.....	Montreal.
Wire Cloth	The B. Greening Co.....	Hamilton, Ont.
Wire, Copper	E. F. Phillips Electrical Works, Ltd.....	Montreal
Wire, Electric	E. F. Phillips Electrical Works, Ltd.....	Montreal.
	The Wire and Cable Co.....	Montreal
Wire, Insulated Copper	E. F. Phillips Electrical Works, Ltd.....	Montreal
Wire, Telegraph and Telephone	E. F. Phillips Electrical Works, Ltd.....	Montreal
	The Wire and Cable Co.....	Montreal
Yachts	Polson Iron Works.....	Toronto.

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Canadian Ry. Accident Ins. Co. Ottawa, Ont.
Travelers' Insurance Co. Montreal.

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Air Brakes & Fittings

Westinghouse Mfg. Co. Hamilton, Ont.

Ales

E. L. Drewry. Winnipeg.

Anchors

Rice Lewis & Son. Toronto.

Arms

James Hutton & Co. Montreal
Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Babbitt

Rice Lewis & Son. Toronto.

Blankets & Bedding

The Hudson's Bay Company.

Block & Tackle

Dominion Wire Rope Co. Montreal.
Rice Lewis & Son. Toronto.

Boat Fittings & Hardware

Rice Lewis & Son. Toronto.

Boiler Covering

Mica Boiler Covering Co. Montreal.

Boilers

Polson Iron Works. Toronto.

Boiler Tubes

B. J. Coghlin & Co. Montreal.
Jas. W. Pyke & Co. Montreal.

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts

Rice Lewis & Son. Toronto.

Brake Beams

Simplex Railway Appliance Co. Montreal.

Brass and Copper Cloth

The B. Greening Co. Hamilton, Ont.

Brass Castings

St. Thomas Brass Co. St. Thomas, Ont.

Bridge Numbers

Acton Burrows Co. Toronto.

Bridges

Dominion Bridge Co. Montreal.

Buoy Lighting

Safety Car Heating and Lighting Co., New York

Cables, Electric

E. F. Phillips Electrical Works, Ltd., Montreal.
The Wire and Cable Co. Montreal.

Cables, Feeder

E. F. Phillips Electrical Works, Ltd., Montreal.

Car Couplers

Latrobe Steel and Coupler Co., Philadelphia, Pa.

Car Heating

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Car Jacks

James Cooper. Montreal.
W. H. C. Mussen & Co. Montreal.

Car Lighting

Safety Car Heating and Lighting Co., New York

Carpets

The Hudson's Bay Company.

Cars

Rhodes, Curry & Co. Amherst, N.S.

Car Wheels

Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Castings

Canada Switch and Spring Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Cement Machinery

Jas. W. Pyke & Co. Montreal.

Chains

Rice Lewis & Son. Toronto.

Coal Haulage Ropes

The B. Greening Co. Hamilton, Ont.

Concrete Mixers

W. H. C. Mussen & Co. Montreal.

Contractors' Plant

James Cooper. Montreal.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Cross Arms, Top Pins & Side Blocks

The Firstbrook Box Co. Toronto.

Crossing Gates

The N. L. Piper Railway Supply Co. Toronto.

Curtains

The Hudson's Bay Company.

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Acton Burrows Co. Toronto.

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The B. Greening Co. Hamilton, Ont.

Derrieks

James Cooper. Montreal.

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Acton Burrows Co. Toronto.

Dry Goods

The Hudson's Bay Company.

Electric Car Route Signs

Acton Burrows Co. Toronto.

Electric Cranes

Dominion Bridge Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Enameled Iron Signs

Acton Burrows Co. Toronto.

Engines, Stationary & Marine

Polson Iron Works. Toronto.

Engraving

Acton Burrows Co. Toronto.
Toronto Engraving Co. Toronto.

Expanded Metal

Expanded Metal and Fire-Proofing Co. Toronto.

Express Office Signs

Acton Burrows Co. Toronto.

Fencing

Canadian Steel and Wire Co. Hamilton, Ont.
Page Wire Fence Co. Walkerville, Ont.

Fire-Proofing

Expanded Metal and Fire-Proofing Co. Toronto.

Flags

Rice Lewis & Son. Toronto.
The Hudson's Bay Company.

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Japans

McCaskill, Dougall & Co. Montreal.

Journal Bearings

Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry. Winnipeg.

Lamps & Lanterns

The Hudson's Bay Company.
Rice Lewis & Son. Toronto.
The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Launches

Polson Iron Works. Toronto.

Life Insurance

Travelers' Insurance Co. Montreal.

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James Cooper. Montreal.
W. H. C. Mussen & Co. Montreal.

Linoleum and Floor Coverings

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Locomotives (Compressed Air)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works. Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Electric)

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Locomotives (Rack)

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Canadian Locomotive Co. Kingston, Ont.

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Milepost Numbers

Acton Burrows Co. Toronto.

Mohair

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Numbers

Acton Burrows Co. Toronto.

Oakum

Rice Lewis & Son. Toronto.
The Hudson's Bay Company.

Oils

Galena-Signal Oil Co., Franklin, Pa., & Toronto.
The Queen City Oil Company. Toronto.

Office Signs

Acton Burrows Co. Toronto.

Packing

The N. L. Piper Railway Supply Co. Toronto.

Pinch Bars

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Pipe Covering

Mica Boiler Covering Co. Montreal.

Plushes

The Hudson's Bay Company.

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Portland Cement

Rice Lewis & Son. Toronto.

Printing

The Hunter, Rose Co. Toronto.
The Mail Job Printing Company. Toronto.

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Rice Lewis & Son. Toronto.

Railway Supplies

The N. L. Piper Railway Supply Co. Toronto.

Rail Joints

Montreal Rolling Mills Co. Montreal.

Rails (New)

James Cooper. Montreal.
Drummond, McCall & Co. Montreal.
J. J. Gartshore. Toronto.

Rails (for relaying)

James Cooper. Montreal.
J. J. Gartshore. Toronto.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Rice Lewis & Son. Toronto.
Jas. W. Pyke & Co. Montreal.

Roof Trusses

Dominion Bridge Co. Montreal.

Rope

Rice Lewis & Son. Toronto.
The Hudson's Bay Company.

Semaphore Arms

Acton Burrows Co. Toronto.

Semaphores

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Shafting

Rice Lewis & Son. Toronto.

Shipbuilders' Tools & Supplies

Rice Lewis & Son. Toronto.

Ship Lamps

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Ships

Polson Iron Works. Toronto.

Shovels

James Cooper. Montreal.
The Hudson's Bay Company.
Rice Lewis & Son. Toronto.

Side Bearings

Simplex Railway Appliance Co. Montreal.

Signal House Numbers

Acton Burrows Co. Toronto.

Signals

The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Signs

Acton Burrows Co. Toronto.

Snow Ploughs

Rhodes, Curry & Co. Amherst, N.S.

Spikes

Rice Lewis & Son. Toronto.

Springs

Canada Switch and Spring Co. Montreal.
B. J. Coghlin & Co. Montreal.

Station Name Signs

Acton Burrows Co. Toronto.

Steamboats

Polson Iron Works. Toronto.

Steamboat Signs

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Safety Car Heating and Lighting Co., New York

(Continued on preceding page.)

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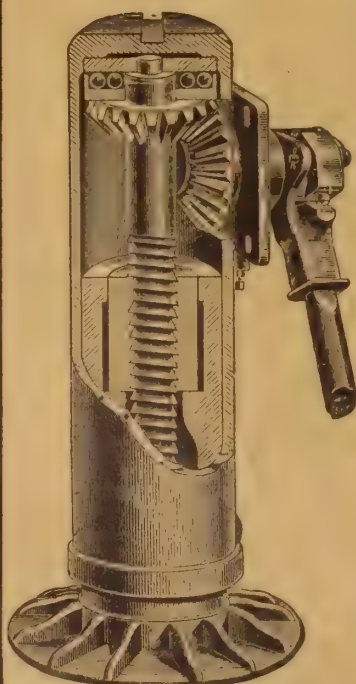
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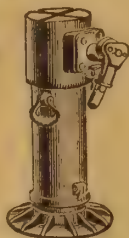
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G.T.R. SEMI-ANNUAL MEETING.

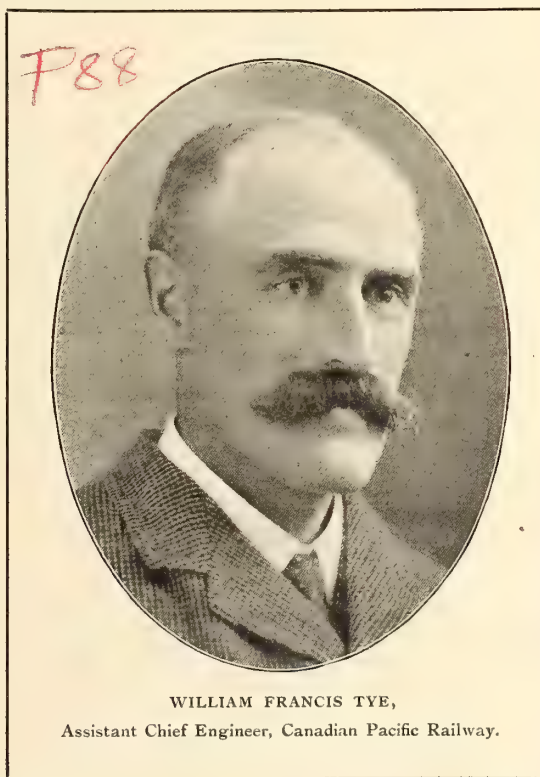
At the semi-annual meeting in London, Eng., April 16, President Sir C. Rivers Wilson, in moving the adoption of the report and accounts, which were published in our last issue, said they would be eminently satisfactory but for the fact that while the revenue, the largest recorded in any one half-year of the Company's operations, showed a satisfactory increase, there was a considerable and abnormal increase in the expenditure, owing largely to causes beyond the control of the management. Notwithstanding this drawback they were able to maintain the dividends of the previous year, and to declare a dividend, the first since 1884, on the 3rd preference stock. After referring to a number of figures contained in the report, he explained that the average fare paid by the passengers to the Pan-American exhibition was, owing to their being carried longer distances, considerably more than that of the ordinary passenger, which had the effect of increasing the average fare, but in the past half-year, when traffic returned to ordinary conditions, the average fare per passenger, while a little better than in 1900, showed a decrease compared with 1901, which is the reason why the increased receipts from the passenger traffic do not appear to be proportionate to the increased number of passengers carried. While the general expenditure had increased owing to the increased traffic handled, there had been special causes which brought about a considerable augmentation of expenditure. The expenditure on maintenance of way and structures showed an increase of £61,515. There was an increase in charges for repairs and renewals of buildings and structures of £81,070, but a decrease in the maintenance of the road-bed and bridges of £19,555. The large increase in the charge for buildings and structures was caused by the rebuilding of several important stations and freight sheds. At Portland, Me., a new station had been built; at Bonaventure station, Montreal, a considerable sum had been expended in the erection of new sheds to replace old and inadequate ones; and 13 stations had been rebuilt at other points. At Bonaventure station it was proposed to roof-in the whole of the platform adjacent to the station, and during the last six months a sum had been set aside out of revenue every month, to meet the cost of this work, and further sums would be set aside out of revenue monthly during the current half-year. The expenditure on maintenance of way decreased £7,515, but the cost of conducting transportation increased £157,731, of which £92,490 was on account of fuel.

Owing to the long-continued coal strike coal had to be bought in Dec., 1902, wherever it could be obtained, and in Jan., 1903, 50,000 tons were purchased in England. This accounted for a considerable proportion of the increased working expenses in Dec., and also for Jan. and Feb. of the current half-year. It was hoped that the contracts for the year would show a considerable reduction upon the prices recently paid, but they would be somewhat higher than the contract prices last year. In connection with the coal question he mentioned that in conjunction with the

the extra cost of coal, there remained £45,000, which, considering the increased work done, and the increased rates of pay to employes, could not be considered otherwise than as satisfactory. The prices of materials of every description have very considerably increased, but the most formidable increase has been in the pay roll, which alone represented something like £100,000. Fortunately, thanks to the intelligent and devoted labor of the General Manager and his staff, the increased receipts have exceeded the increased expenditure, large though that has been. The

G.T.R. had been more fortunate in this respect than many of the U.S. railways, and the contrast is distinctly in favor of the G.T.R. management. In 1902 166 railways in the U.S., covering 157,293 miles, with an increase of gross receipts of \$82,000,000, show \$85,000,000 increase in their working expenses, so that their net income was actually less by \$3,000,000 than in 1901. The net revenue account showed that there was £33,962 available for dividend, and shareholders would be glad to hear that the amount now outstanding of the 6% and 5% terminable bonds is a little over £2,000,000, and that in Aug. there will be a reduction of £177,700 made by the falling in of some 5% bonds, which will result in another small saving. The expenditure on capital account during the half-year was £135,784, and was mainly confined to the construction of the double track between Whitby and Port Hope, and Hamilton and Niagara Falls, Ont., the last named section being almost completed. The 24 miles remaining to be completed between Whitby and Port Hope is really a diversion of the old line, as this was thought advisable in order to obtain an improved alignment and easier grades, as well as to protect the line from the encroachments of the lake, to which it was rather too close in one or two places. Although the progress of this work has not been so rapid as could have been wished, it was expected to be completed during the summer, and when this is done the G.T.R. will have a continuous double track from Montreal to Niagara Falls, 416 miles, which will be of great assistance in expeditiously and economically conducting the constantly increasing traffic.

The 50th anniversary of the incorporation occurred on Nov. 10, 1902, and in 1853 the prospectus was issued inviting subscriptions for the capital of the Company. "A perusal of that prospectus," continued the President, "at the present day affords matter for an interesting retrospect. What changes have come over Canada, and what vicissitudes have occurred to the G.T.R. during that time? The



WILLIAM FRANCIS TYE,
Assistant Chief Engineer, Canadian Pacific Railway.

Toledo, St. Louis and Western Ry., the G.T.R. had obtained control of a small but important line running from Detroit to Toledo. The great coal traffic of Ohio centered at Toledo, and with this new connection the G.T.R. would be able to obtain its coal under more favorable and economical conditions than had hitherto been the case. Of the remainder of the increase £17,698 was for compensation for injuries to persons, and £20,000 had been set aside to meet claims for compensation arising out of the accident at Wanstead, Ont., on Dec. 27. Deducting this special debt from £65,000, the increase in the cost of conducting transportation, apart from

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TORONTO, CANADA, JUNE, 1903.

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ronto.

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B.C., T. M. Heard; Lewis, E. Belanger; Sorel, A. L.
de Martigny; Owen Sound, J. M. Wilson.
NEXT ANNUAL MEETING of the Grand Council in
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Toronto.

G.T.R. Semi-Annual Meeting.

(Continued from page 181.)

prospectus is headed by the honored names
of Thos. Baring and G. C. Glyn, who are de-
scribed in the prospectus as agents of the
Province of Canada and directors of the
Company on behalf of the Canadian Govern-
ment, and in addition, the names of various
high and important functionaries of the Cana-
dian Government as directors on the Cana-
dian board. The prospectus offered most
alluring prospects to the investing public.
Some of these prospects, such, for instance,
as the allusions to the future prosperity of the
Provinces through which the road would run,
have been amply realized, more so than the
promoters could have expected. The wealth
of the colony, since that time, has advanced
by leaps and bounds. The movement of trade,
as indicated by the imports and exports, was
mentioned in a despatch written by Lord
Elgin, then Governor-General, as amounting,
in 1851, to £7,000,000 stg. Last year it was
£86,000,000 stg. The revenue which Lord
Elgin mentions as being, in 1851, less than
£700,000, increased in 1902 to over £12,000,-
000 stg. In one particular the predictions of
the framers of the prospectus have not by any
manner of means been realized—in the estim-

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ate which they formed of the dividend to be
earned on the share capital of the Company,
which they put at 11½%. You may laugh,
but the resources and the prospects of that
magnificent land are such that it is not at
all impossible that even that fair dream may one
day be realized, though I must frankly own that
I am hardly sanguine enough to anticipate
that I shall be able to stand up in my place in
this hall and make the gratifying announce-
ment to the shareholders, but I do not hesi-
tate to say that had this corporation had fair
play, as might reasonably have been expect-
ed, considering the auspices under which it
was started, without attaining, perhaps, to
the magnificent dividend of 11½% the financial
fortunes of the Company would have fared
better than they have done in the past, for the
prospectus—this Government prospectus, as
I may call it—sets out that the scheme which
‘offers the most comprehensive system of
railway in the world, is protected from the
possibility of injurious competition for nearly
its entire length by natural causes as well
as by legislative enactment—a declaration
which did not prevent powers being after-
wards given to another company to establish
an entirely unnecessary line close alongside

the G.T.R., through the best portions of the Province of Ontario. This, however, is ancient history, and I hope I may mention it without giving offence. But one of the most remarkable features of the prospectus of 1853, as we read it to-day, is that while the Canadian statesmen of that time saw clearly the certainty of the great progress in store for Canada, their geographical foresight seems to have been limited on the west by the St. Clair and Detroit rivers, which form the western boundary of the Ontario peninsula. Nothing was said of the great Northwest territories, and the map attached to the prospectus includes no portion of that region beyond the Lake of the Woods, some 250 miles west of Lake Superior. What the development of that country has been in recent years, what a prospect has been opened up of its almost illimitable development in the future, is well known to you. The Governments and Parliaments of Canada have wisely given a generous, even a lavish, support to the enterprise of the promoters of the C.P.R., which has had so large a share in the development of that great territory, but now, and more speedily than could have been anticipated, the time has arrived when the means of transportation are quite inadequate to provide for the enormous produce seeking an outlet to the markets of the world, and for the requirements of the new population which is crowding into the territories of the Northwest. The Dominion Government has recognized the urgency of the case, and in the speech of the Governor-General, at the recent opening of Parliament, the necessity of providing increased transportation facilities was forcibly impressed on the representatives. The present board of the G.T.R. have been careful to avoid all adventurous enterprises for the acquisition or construction of new lines where the liabilities might be large and the profits uncertain, but they have always reserved to themselves the right of bringing before you proposals, should favorable opportunities present themselves, for extending the operations of the Company in new directions, where it might be clearly established that the interests of the Company would be served, and under conditions of absolute financial safety. We consider that such an opportunity presents itself in regard to the railroad requirements of the Northwest Provinces, and that the necessity almost imposes itself upon the Company for its own protection to take steps for securing a share in the advantages offered by the rapid development of those Provinces. The G.T.R., owing to its favorable geographical position, is naturally one of the most important agents for the transportation eastwards of the products of the western countries of the North American continent, but in order to maintain its superiority, in order merely to keep abreast of the movement of competition and railway enterprise, it is essential that it should ensure the continued flow of traffic over its line; and there are two ways in which that might be done—either by constructing or acquiring lines of its own in the producing districts, or by establishing the closest connection with other companies acting in harmony and alliance with itself under exclusive and favorable working traffic arrangements. The first of those alternatives is opposed to the general policy of the board for reasons which, in view of the existing liabilities and responsibilities of the Company, are sufficiently apparent, but we believe that arrangements of a beneficial nature may be entered into in combination with other interests for attaining the object in view with perfect safety to our own Company, and it is in this direction that we have sought for a solution of this important question. We have accordingly caused a bill to be prepared providing for the creation of a separate corporation for the construction of a railway running from some

point on the G.T.R. system through the Northwest to an ultimate terminus on the Pacific coast. The road would pass through and open up new districts at present unreached by any railroad, but offering equal prospects of fertility to those in proximity to the existing lines; and powers would also be taken to extend the road eastwards as far as Quebec. The scheme is of an ambitious character, but experience has shown that the sanguine anticipations entertained in Canada as to the undoubted benefits that will accrue from it to the Dominion are not likely to prove exaggerated. To such a company the G.T.R., without engaging the credit of its own shareholders, would bring, as a most valuable contribution, its influence, experience and established connections. But, while the accomplishment of so great an undertaking will undoubtedly bring with it immense benefits to the Dominion, and will accelerate the prosperity of the country in a way that can be attained by no other method, these results can be reached only by degrees, and it is out of the question to suppose that the large amount of capital required for opening up the wilderness and converting it into a fruitful and peopled land, can be attained by the sole prospect of dividends in the distant future after the country has been brought under settlement. The same reasons, therefore, which prompted the Canadian Government and Parliament to assist the pioneers of the earlier enterprise, apply in an almost equal degree to the national undertaking now in contemplation, and it is in reliance that such assistance and encouragement will be forthcoming that we have announced our intention, which we hope will commend itself to your approval, to promote and support the proposed new company. The bill has been introduced, and the form and extent of the Government assistance are under discussion with Sir Wilfrid Laurier and his colleagues, who, we trust, taking a statesmanlike view of the necessities of the country, may see their way to recommend such liberal treatment as will ensure the accomplishment of a project which we know they have at heart. To sum up the situation briefly then, it is—first, that new railway accommodation is urgently required, that is generally conceded; secondly, this object can only be attained, if years of long and harmful delay are to be avoided, by the aid of some measure of Government assistance; thirdly, existing railway interests will be benefited and not damaged by the introduction of new railroads; fourthly, the interest of the G.T.R. in supporting the new company lies in the necessity of securing its fair share in the transportation of the growing traffic from the Northwest, while its advantages and well-established position marks it as the agent by which the proposed extension can be most readily and most satisfactorily promoted and controlled. If terms are arranged and satisfactory legislation is obtained, it will be our duty to submit for your consideration and decision any traffic or other arrangements which we may propose to enter into with the new company, when further and fuller explanations can, if necessary, be afforded."

The President then referred to the bill before Parliament authorizing the issue of 4% guaranteed stock, to a total of £10,000,000, and explained that the credit of the company was now such that it was not necessary to continue to rely upon the 4% debenture stock for additions to capital expenditure. The proposal was one for the advantage of the holders of all classes of the company's securities, and the large amount had been asked for in order to avoid the necessity of going to Parliament every year or so.

The dividends declared were: 4% guaranteed stock, £2%; 1st preference stock, £2 10s.; 2nd preference stock, £2 10s.; 3rd preference stock, £1%. The retiring direct-

ors: G. von Chauvin, Col. F. Firebrace, A. W. Smithers and Sir W. L. Young were re-elected; W. M. Ramsay, Montreal, was re-elected auditor, and H. C. Newton, London, was elected auditor to fill a vacancy.

The Frank Disaster.—On the morning of April 29 the new coal mining town of Frank, Alta., was partially buried under an avalanche of rock from Turtle mountain, 62 persons being killed. Among the dead are J. McVeigh, of Poupore & McVeigh, railway contractors, and a number of employees of the firm. In addition to the damage to the town and to the plant at the openings of the coal mines, the C.P.R. Crow's Nest Pass line for about two miles, and about 1½ miles of the recently constructed Frank and Grassy Mountain Ry., have been buried. E. H. McHenry, Chief Engineer of the C.P.R., who was on the western sections of the line at the time, visited the scene, as also did representatives of the Crow's Nest Coal Co., and the Dominion Government Geological Survey. They found the landslide to have been from two to 2½ miles wide, and the valley has been covered with the fallen limestone from 50 to 100 ft. deep. An examination of the mountain showed that the rock was badly decomposed and full of fissures, and that the fall may have been precipitated by mining operations. The C.P.R. has under construction a new line round the town, no endeavor having been made to clear the buried line. What will be done on the Frank and Grassy Mountain Ry. has not been decided.

"**The All Red Line**," is the title of a volume of nearly 500 pages which has for its object the placing on record in a convenient form the annals of the Pacific cable project, in which, from first to last, Canada has taken such a conspicuous part; and the education of the public mind in the direction of the state-owned British cable all round the world. The book is edited by Geo. Johnson, Dominion Government Statistician, who, in addition to a general introduction and articles on the bibliography and chronology of cables, contributes several chapters to the main body of the work. The sixteen chapters, which form the main body of the work, deal with the Jubilee conference in 1887, the nautical survey, the mission to Australia, mid-ocean islands, the Ottawa conference of 1894, the tenders for cables, the Imperial committee of 1896, the conference of 1897, state partnerships, the enemies of the project, a Pan-Britannic system, girdling the globe, the postal cable service, cable laying, the coronation conference of 1902, and wake-up. A number of these chapters have been contributed by men who have special knowledge of the matter dealt with, that on cable laying by Otto Klotz being particularly interesting.

In connection with the investigation by the Cattle Guards Commission, which has completed its work of testing the various forms of guards submitted, but which has not presented a report, a return presented to the House of Commons will have some interest. The return showed that during 1901 there were 742 cattle, sheep and horses killed in Canada upon railways at their points of intersection with highways, and 1,485 were killed at other points on railways. Their value was placed at \$54,107. The number of animals killed was in excess of previous years.

The C.P.R. fast transcontinental train—the Imperial Limited—will commence running June 7, a week earlier than last year. The running time will be 97 hours, as last year. The daily train between Montreal and Vancouver each way will be continued.

The Toronto Ry. Co. has given \$1,000 to the Toronto Industrial Exhibition.

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturer of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

Temiskaming and Northern Ontario Ry.

The first report of the commission, recently issued, deals not only with the work done directly under the supervision of the commission, but reviews what was done under the Ontario Commissioner of Public Works prior to Aug., 1902. Having completed its organization, the commission considered the report of W. B. Russell, Chief Engineer, and after having obtained a special report from G. E. Mountain, C.E., Chief Engineer of the Canada Atlantic Ry., decided to adopt the eastern, which had been recommended by Mr. Russell, in preference to the western route, which was surveyed for the Nipissing and James Bay Ry., and upon which Mackenzie, Mann & Co. did some work in 1901-02. To reach a point 50 miles north of North Bay, the route selected is 56 miles long, and passes through a well-timbered country, with large areas of agricultural land, while the western line is 50 miles long, and passes through a rocky and barren area. The gradients are practically the same in each case, and there was only a difference of \$422 in favor of the western line, so far as the estimated cost of construction was concerned. Temporary arrangements were made with the Ontario Bank for financing the undertaking, and after a consultation with the Government it was decided to issue \$1,000,000 of 3½% temporary guaranteed debenture bonds payable on demand after July 1, preparatory to the issue of bonds secured on the line and the land set apart by the Government for the construction of the line. This course was adopted so that an act might be passed clearing up any doubt that might exist as to the construction to be placed upon the act of 1902, under which it might appear as if the bonds to be issued did not include the railway as a security along with the land grant.

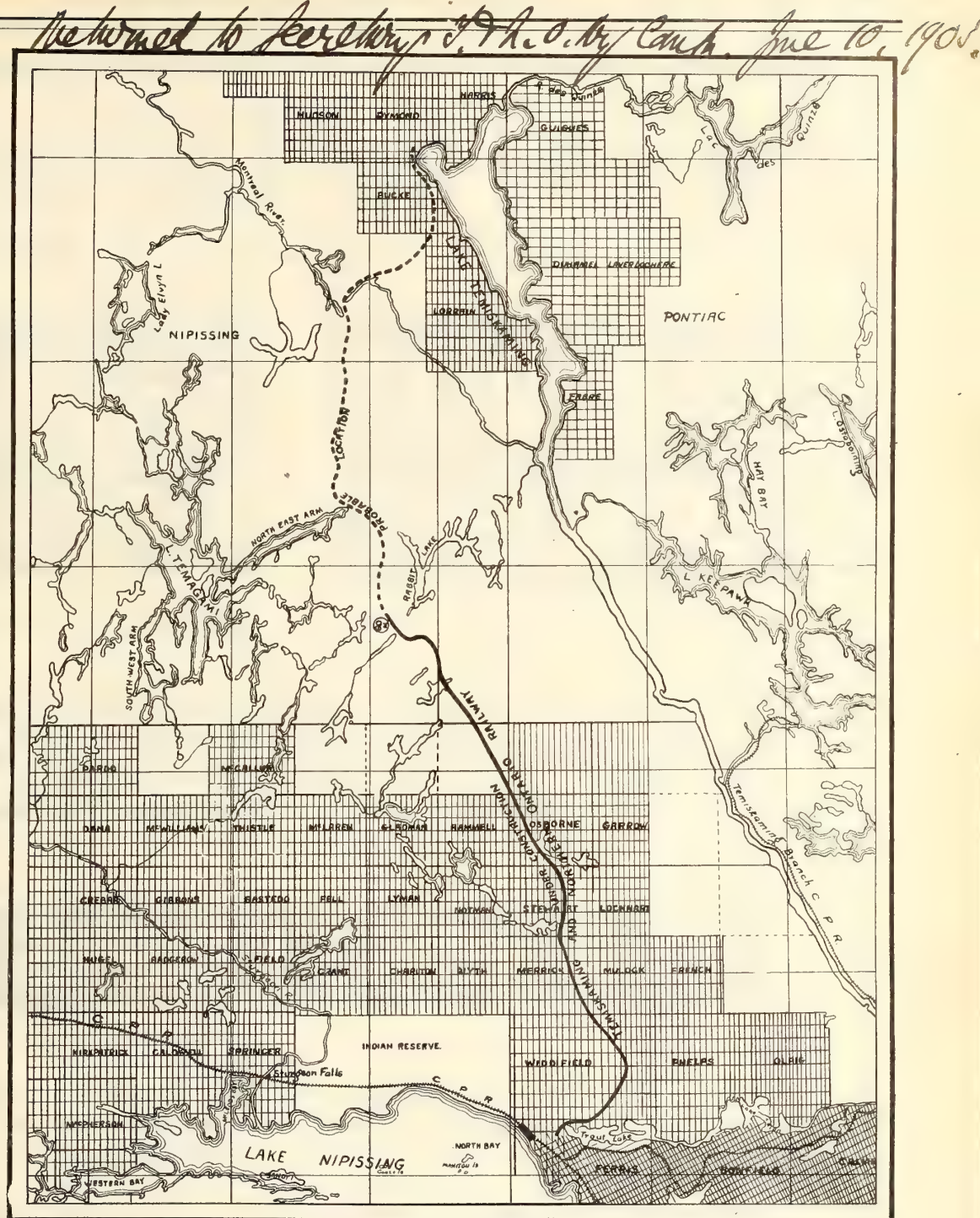
At an early meeting the commission decided to cancel the contract entered into for clearing 20 miles of the grade as the contractor was not proceeding with the work at a satisfactory rate, paying the contractor for the work actually done at cost. The question of constructing the line without a contract was discussed, but it was finally decided that it would be the better course to let a contract, consequently tenders were asked for the construction of 110 miles of line, ties, rails and fastenings, as well as superstructures of any steel bridges, to be supplied by the commissioners. Twelve contractors submitted prices, which, on the work for which quantities had been estimated, worked out as follows: A. R. Macdonnell, \$1,464,600; Canadian Construction Co., \$1,514,450; Thos. McLaughlin, \$1,535,800; Barclay & McMartin, \$1,548,600; Fauquier Bros., \$1,590,550; Ross, Barry & Co., \$1,594,181; Deeman & Hazlewood, \$1,628,750; M. P. Davis, \$1,644,750; New Ontario Development and Construction Co.,

\$1,687,050; G. Goodwin, \$1,806,550; H. J. Beemer, \$1,822,600; J. J. Lyons, \$3,050,450. The contract was awarded to A. R. Macdonnell, whose prices for the work for which there were no estimated quantities, were: solid rock, wet, \$3.50; loose rock, wet, \$1.75; hard pan, wet, \$1.75; earth, wet, 75c.; masonry, 1st, \$15; masonry, 2nd, \$11; concrete, rubble, \$8; rip-rap, \$2.75; crib-filling, \$1.50; crib timbers, \$30. The contract entered into calls for the completion of 110 miles by Dec. 31, 1904, and for the completion of the first 60 miles by Dec. 31, 1903.

During the year approximately 200,000 ties will be required, 25,000 of which, it is expected, will be furnished by the contractor for the railway, and a contract was let to T. Wallace to supply the remaining 175,000 at 21c. each for cedar and hemlock, and 22c. each for tamarac. A contract for 8,200 tons of steel rails was let to the Algoma Steel Co. at \$32 a ton f.o.b., North Bay, but the contract was afterwards surrendered, and a contract plac-

ed with J. Cooper, of Montreal, at \$28.50 f.o.b. North Bay. Other contracts for spikes and fastenings have been entered into, and deliveries on all these contracts are to be made so that tracklaying can be commenced early in June.

Starting from North Bay, the preliminary survey showed that at a distance of 15 miles northward the country rose to an elevation of 1,290 ft. above sea level, or about 660 ft. above Lake Nipissing, and that in order to overcome that height with anything like easy gradients a route would have to be laid out easterly or westerly instead of direct north. For reasons already stated the easterly route, shown on the map on this page was adopted. At Trout lake the navigable waters of the Ottawa river are touched, and at mileage 71 the northeast arm of Lake Temagami is reached, and Lake Temiskaming is reached at mileage 110. This route gives a maximum gradient of 1.25%, or 66 ft. a mile going north, and 1.60%, or 52.80 ft. a mile coming



Enameled Iron Express Signs.

Guaranteed not to fade or in any way to perish from exposure.



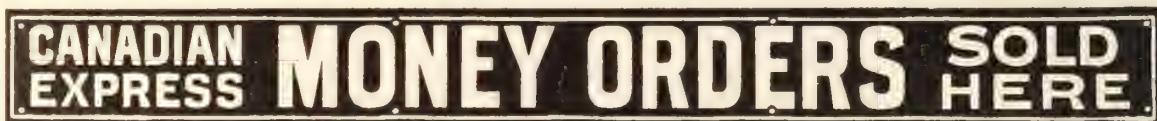
No. 1. Size 14 x 26 inches, including flange at right angle. White letters on blue ground. Lettered on both sides.



No. 2. Size 14 x 26 inches, including flat flange. White letters on blue ground. Lettered on both sides.



No. 3. Size 24 x 3 inches. White letters on blue ground.



No. 4. Size 30 x 3 inches. White letters on blue ground.

These Signs are used largely by the Canadian, Dominion, Canadian Northern and Newfoundland Express Companies, and we can refer to the managements of those Companies as to their quality.

Enameled Iron Signs can be made in any shapes, sizes or colors. Blue and white form the most striking contrast and are the most effective.

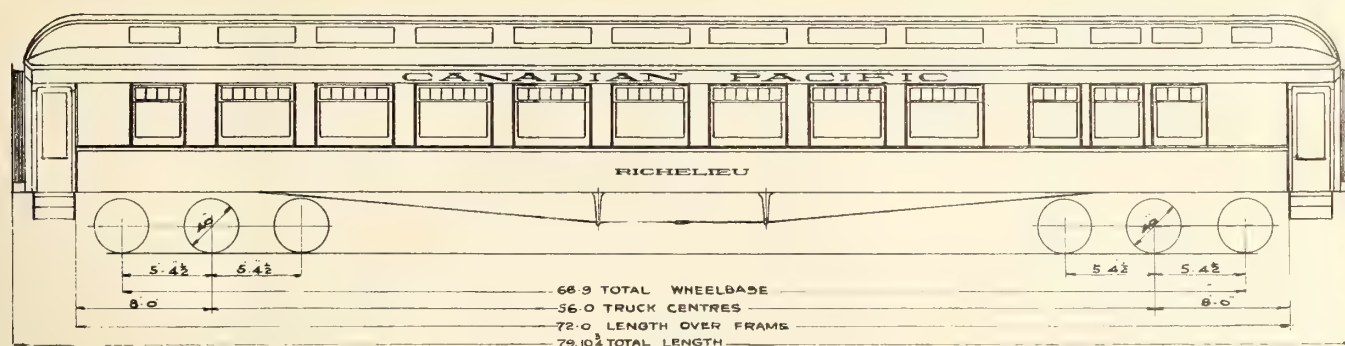
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Prices and Further Particulars on Application.

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The Acton Burrows Co., 29 Melinda Street, Toronto.

Importers of Enameled Iron Signs of the best English manufacture.
Dealers in Lithographed Tin and Iron Signs.



OUTSIDE ELEVATION C.P.R. PARLOR CARS, RICHELIEU AND ST. MAURICE.

south against the expected heavier traffic, and the maximum curve is 6°, or a radius of 955.4 ft. One feature of the construction is the absence of any large river crossing, except in the one case of the Montreal river, near mileage 90. For nearly the entire distance south of this point the line runs along the height of land between the Ottawa river and Lake Nipissing waters, crossing in some cases streams running one way, and in others streams running to the other waters, near their sources where they are small, requiring only a short span to take the road across them.

The members of the commission are: A. E. Ames, chairman; B. W. Folger, E. Gurney, M. J. O'Brien and F. E. Leonard, who each receive an honorarium of \$1,000 a year; P. E. Ryan is Secretary-Treasurer, his salary being \$125 a month, and W. B. Russell is Chief Engineer at \$250 a month. The other principal employees of the commission are: C. R. Boucher, Divisional Engineer, \$150 a month; E. E. Perreault, engineer and draughtsman, \$100 a month; R. A. Galbraith, engineer in charge of construction, section 1, \$100 a month; C. L. Russell, engineer in charge of construction, section 2, \$100 a month; A. McGougan, engineer in charge of construction, section 3, \$100 a month; C. W. Doherty, engineer in charge of construction, section 4, \$100 a month; F. C. Jackson, engineer in charge of construction, section 5, \$100 a month; R. Laird, engineer in charge of location survey southward from New Liskeard, \$150 a month; T. S. Hay, engineer in charge of location survey northward from end of 60 miles, \$125 a month.

Railway Equipment Notes.

The St. John Ry. is adding to its equipment 6 motor cars built in Montreal.

The Intercolonial Ry. recently received 11 stock cars, completing an order for 21.

The G.T.R. will build 25 standard switching locomotives in its Montreal shops this year.

The Sherbrooke Street Ry. has received a new open car, and has placed an order for a closed car.

The Intercolonial Ry. is building at its Moncton shops an air-brake instruction car and two conductors' vans.

The St. Thomas, Ont., Electric Ry., which is now operated by the city, is to have five motor cars added to its equipment.

The Canadian Northern Ry. has ordered 100 flat cars, 60,000 lbs. capacity, 36 ft. long, to be built in the U.S., and to be delivered in June.

The G.T.R. has placed orders in the U.S. for 500 double hopper bottom coal cars, 50 tons capacity, and 500 box cars, 30 tons capacity.

The C.P.R. is reported by the Railway Age as being about to build 400 coal cars in its shops. We are officially informed that this is incorrect.

The C.P.R. has placed orders to build at its Hochelaga shops, Montreal, 10 fruit express cars, and at its Perth shops 400 30-ton flat cars, 84 30-ton box cars and 50 ore cars.

The C.P.R. has placed an order for 10 consolidation freight locomotives to be built in Canada, which will practically be duplicates of those recently built for the company by the Canadian Locomotive Co.

The Brockville, Westport and Sault Ste. Marie Ry. has added to its rolling stock a 1st class passenger car, a combination 1st class passenger and baggage car, a combination baggage and mail car, and eight 50,000 lb. box cars.

The G.T.R., during the first three months of this year, added the following rolling stock: 3 Richmond compound locomotives; 729 flat cars, 94 box cars, completing an order for 1,000 placed in U.S. last year; 5 first-class passenger cars and 27 cabooses.

The Canadian Copper Co., of Copper Cliff, Ont., has ordered from the Baldwin Locomotive Works two switching locomotives, cylinders 21 by 26 in., driving-wheels, 50 in. in diameter and weighing about 154,000 lbs. Delivery is to be made in 1904.

The Dominion Atlantic Ry. has ordered from the Baldwin Locomotive Works one American type passenger locomotive, which is to be the duplicate of one of the company's locomotives, cylinders 18 by 24 in., driving-wheels 66 in. in diameter, weighing about 107,000 lbs., with 66,000 lbs. on drivers. Delivery is to be made in May, 1904.

The Alberta Ry. and Coal Co. has added to its equipment, 3 locomotives, 3 passenger cars, 6 box cars and 10 flat cars, standard gauge. These are being used between Lethbridge and Coutts, Alta., and in addition Great Northern Ry., U.S.A., equipment is being used for through business between Great Falls, Mont., and Lethbridge.

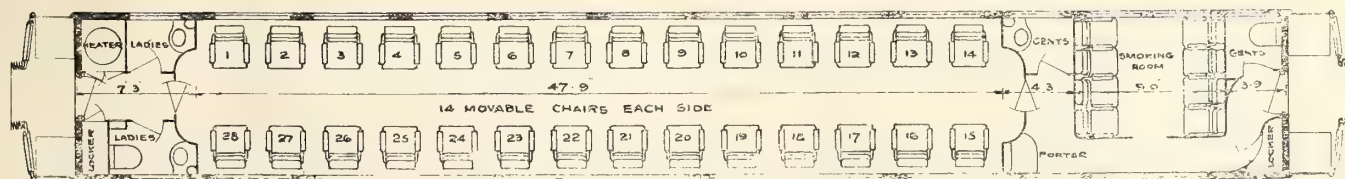
The Central Ry. of New Brunswick is reported to have put a new locomotive in service and to have bought three locomotives from the Intercolonial Ry., which are to be rebuilt. It is also reported to have placed an order for three combination passenger and baggage cars and to be negotiating with Rhodes, Curry & Co., of Amherst, N.S., for box, coal and flat cars.

The C.P.R.'s 400 flat cars, which are being built at the Company's Perth shops, will have the following general dimensions, etc.:—Capacity, 60,000 lbs.; weight, 26,000 lbs.; length, 36 ft. 8 in.; width, 8 ft. 10 in.; height, 4 ft. 2 in.; material, wood; under-frame, wood; bolsters and brake beams, Simplex; brake-shoes, M.C.B., cast iron; brakes, Westinghouse; brasses, St. Thomas Brass Co.; springs, Canada Switch Co.; wheels, 33 in. cast iron, C.P.R. standard and make.

The C.P.R.'s 84 box cars, which are being built at its Perth shops, will have the following general dimensions, etc.:—Capacity, 60,000 lbs.; weight, 37,000 lbs.; length, 36 ft. 8 in. outside, 36 ft. inside; width, 9 ft. 1 1/2 in. outside, 8 ft. 6 in. inside; height, 8 ft. inside; material, wood; under-frame, wood; bolsters and brake beams, Simplex; brake-shoes, M.C.B. cast iron; brakes, Westinghouse; brasses, St. Thomas Brass Co.; springs, Canada Switch Co.; wheels, 33 in. cast iron, C.P.R. standard and make.

The C.P.R. received the following new equipment between April 1 and May 11:—6 sleeping cars and 10 1st-class cars, built in the U.S.; 18 40-ton box cars, 6 30-ton refrigerator cars, and 276 30-ton flat cars, built by Rhodes, Curry & Co., Amherst, N.S.; 120 30-ton flat cars, built by the Algoma Central and Hudson Bay Ry., Sault Ste. Marie, Ont.; 7 30-ton box cars, 10 30-ton refrigerator cars, 56 40-ton coal cars and 50 30-ton ore cars, built at the Company's Perth shops, and 3 conductors' vans, built at the Company's Farnham shops.

The Canadian Northern Ry.'s 30 cabooses, which are being built at its Winnipeg shops, have the following general dimensions:—Length over end sills, 30 ft.; length inside, 29 ft. 2 3/8 in.; length over bunter beams, 35 ft. 1 5/8 in.; length between truck centres, 20 ft. 4 in.; width over side sills, 9 ft. 1 1/2 in.; width inside, 8 ft. 6 in.; top of sill to bottom of plate, 6 ft. 6 in.; six sills, 5x9; plates, 7x3 1/4 x 34 ft. 3 5/8 in.; carlins, 1 1/4 x 9 1/2; end plates, 3 1/4 x 13 in.; side posts and braces, 2 1/2 x 4; corner posts, 4x3 1/2; door posts, 4x4; cupola, 3 ft. 4 in. above roof, 5 ft. long and 6 ft. 1 in. wide inside.



FLOOR PLAN C.P.R. PARLOR CARS, RICHELIEU AND ST. MAURICE.

25 Broad Street, NEW YORK CITY.

Heating surface, fire box.....	155 square feet
tubes.....	1,530
total.....	1,691
Grate area.....	30
Diameter of driving wheels.....	56 in.
Material of.....	centres..... Cast iron
Diameter and length of driving journals.....	8 in. dia. x 9 in. long
Diameter of cylinders.....	19 in.
Stroke.....	24 in.
Type of boiler.....	Belpaire
Working pressure of boiler.....	180 lbs.
Number of tubes.....	239
Diameter.....	2 in.
Length.....	12 ft. 4 in.
Brakes.....	Westinghouse American
Truck wheels.....	28 in. cast iron double plate
Weight of tender, loaded.....	96,000 lbs.
Capacity of tank in imperial gallons.....	4,000
Style of tank.....	U shape
Coal capacity.....	8 tons
Style of truck.....	4-wheeled
Diameter of wheel.....	33 in.
Kind of wheel.....	Cast iron double plate
Diameter and length of journal.....	5 in. dia. x 9 in. long, M.C.B.

The C.P.R. has recently added to its passenger rolling stock two parlor cars, the Richelieu and St. Maurice, which have been placed on the Montreal-Ottawa short line. The exterior finish and decorations are in line with C.P.R. standard, and in construction they have all the up-to-date improvements in car construction, especial attention having been paid to take every advantage to add to strength, where experience has shown the need. The length of the cars is 72 ft. over body sills, the extreme length over buffer plates being 79 ft. 10 3/4 ins. The exterior finish is Mexican mahogany and is tastefully decorated in gold. In designing these cars the officials aimed at smooth surfaces and light profiles and have eliminated all carving. A very rich appearance has been obtained by using mahogany veneers and neat marqueterie borders and lines decorated in light shades of green. The chairs are upholstered in pale green plush and designed with a view to comfort. The smoking-room is supplied with eight chairs of same design as in the main room, but they are upholstered in maroon-colored leather. The walls of the smoking-room are divided off, by means of marqueterie lines, into large panels which extend from a few inches from the floor up to the base line of the monitor deck. The veneer used in this room is African mahogany. Each car has two women's toilets, a men's toilet and a men's saloon, all being fitted with the latest improved flushing closets and nickel-plated washstand tops. The main room has four double acme lamps. On each side of the main room or parlor are eight large plate glass windows, the glass being 26 x 48 ins. Each window is fitted up with double top and bottom sashes, the inside bottom being set in a hinged brass frame; this is to enable the glass to be cleaned. Between each window space is a richly veneered and inlaid pilastre, extending from the top of the truss plank to the base of the side cove, while along the base of the side cove runs a neatly inlaid moulding. The bulkheads are in keeping with the side elevation, veneered with the same quality of mahogany, divided off by pilastres, which extend from the floor to the same elevation as the side pilastres. The bulkheads are recessed in elliptic lines, which gives the end views a very novel appearance, advantage being taken with this to form an overhead cove of art glass in colors to match the deck lights. The ceilings are of the Empire style, and neatly attached to the lower end of each centre lamp is an ornamented brass bell cord eye, through which passes the signal cord. This does away with the objectionable swinging bell cord-hanger. These cars represent all that is new and up-to-date in the way of beauty and luxury. The chairs in their comfort and elegance invite an unlimited trip, while the eye is never tired taking in the quiet richness of the decorations of the car. A floor plan and exterior elevation are given on page 187.

RAILWAY FINANCE, MEETINGS, ETC.

The Atlantic and Lake Superior Ry. Co. has entered an action against Heney & Smith, contractors, Ottawa, to recover \$32,000. This firm had a contract to build a wharf for the Company at Paspebiac, Que., and lumber was supplied for the job by Veilleux & Co., of Levis, Que. This firm secured judgment against the Company for the lumber, but an appeal has been entered. The present action by the Company is in the nature of an indemnity claim in the event of an adverse judgment on the appeal in the Veilleux case.

British Columbia Electric Ry. Co.—Earnings and expenses for Mar.:—

	1902.	1903.	Increase or Decrease.
GROSS EARNINGS.			
Railway—Vancouver division	\$9,794	\$11,768	\$1,974+
Victoria	8,401	8,221	240-
Westminster	7,958	8,895	937+
Lighting—Vancouver division	12,987	15,457	2,470+
Victoria	5,944	7,420	1,476+
	45,144	51,761	6,617+
Less working expenses.....	28,494	34,248	5,754+
	16,650	17,513	863+
Renewal funds.....	3,458	4,222	764+
Net income.....	13,192	13,291	99+
Gross earnings, July 1, 1902, to Mar. 31, 1903.....	445,113	507,189	62,076+
Net earnings, July 1 to Mar. 31, 1903.....	\$150,529	\$168,835	\$18,306+

Application has been made to the London, Eng., Stock Exchange for an official quotation of a further issue of £10,000 of deferred ordinary stock. (May, pg. 153.)

Calgary and Edmonton Ry.—Net earnings for Mar., \$26,526, against \$30,480.53 for Mar., 1902, making for three months ended Mar. 31, \$58,131.96 against \$91,143.21 for same period, 1902.

The arrangements for the passing of the C. and E. R. to the C.P.R. are completed. That the ownership of the line would be transferred to the C.P.R. was foreshadowed in the arrangement made with the bondholders in Great Britain. The total amount of the bonds was £1,140,400, of which £18,700 have been cancelled, leaving £1,121,700 outstanding, in addition to which there was also a large amount owing on unpaid interest certificates. By the arrangement, ratified by the bondholders Feb. 6, the 6% bonds and unpaid interest certificates were to be surrendered, and bondholders were to receive in return £1,121,700 of 4% debenture stock of the C. and E. Ry., the C.P.R. taking a lease of the line for 99 years, at an amount equal to 4% on the £1,121,700 of debentures. The bondholders who acquiesced in this arrangement held £1,095,900 of the outstanding bonds. It was stated that one of the conditions upon which the C.P.R. was prepared to enter into this agreement was that it could acquire the whole of the common stock of the Company on reasonable terms. The amount of the common stock is \$1,000,000, and this has been acquired, and the transfer is being carried out. The price paid for the stock which, it is stated, was held jointly by Jas. Ross, of Montreal, and E. B. Osler, M.P., of Toronto, has not transpired, but some press reports put it as high as \$6,000,000. The property transferred consists of the railway and the subsidy of \$80,000 a year for the carriage of mail and Dominion Government traffic, which will expire in 1910. The line extends from Calgary to Edmonton, Alta., 190.97 miles, and from Calgary to Macleod, Alta., 104.10 miles, and has a total track of 304.80 miles, laid with 56-lb. steel rails. The roadbed generally is reported to require a considerable sum of money expended upon it to bring it up to the requirements

of present day traffic. The Company does not own any rolling stock, the line always having been operated by the C.P.R. under lease or agreement. The cost of the line, according to the figures given in the report of the Department of Railways, was \$3,743,502. The original land grant was at the rate of 6,400 acres a mile, of which the Government retains 407,402 acres against the annual cash subsidy, and the C.P.R. obtained an additional area on account of its undertaking the operation of the line for five years; while the balance was sold to a land company at an early stage. According to a return recently made to the House of Commons, 1,139,540 acres of the land grant has been patented, and 304,288 acres is still reserved. Within the last year Mackenzie, Mann & Co. were negotiating for the line with a view of utilizing it in their Canadian Northern Ry. enterprise. The incorporators of the C. and E. Ry. Co. were: Jas. Ross, E. B. Osler, H. C. Hammond, Wm. Mackenzie, H. S. Holt and D. D. Mann. (Mar., pg. 104.)

Canada Southern Ry.—A committee, consisting of C. F. Fox, W. K. Vanderbilt, H. B. Ledyard and J. B. Brown, has been appointed by the Michigan Central Rd. to negotiate a new contract with the C.S. Ry. covering the annual division of earnings between the two companies. The present contract expires Dec. 1.

Canadian Northern Ry.—Gross earnings:—

	1902-03.	1901-02.	Increase.
July.....	\$132,300	\$ 87,200	\$45,100
Aug.....	130,900	97,000	33,900
Sept.....	209,300	103,300	106,000
Oct.....	190,200	120,610	69,590
Nov.....	259,800	119,142	140,658
Dec.....	202,300	129,918	72,382
Jan.....	154,700	102,067	52,633
Feb.....	147,825	109,524	38,301
Mar.....	174,700	116,900	57,800
April.....	198,125	109,924	88,201
	\$1,800,150	\$1,095,585	\$704,565

Working expenses for Mar., \$120,400; net earnings, \$54,300, against \$46,404 for Mar., 1902; net earnings for nine months, \$554,841, against \$397,947 for same period, 1901-02.

Central Ontario Ry.—The application of T. G. Blackstock and other bondholders for an act giving bondholders the same rights as shareholders, has been unanimously rejected by the Railway Committee of the House of Commons.

The Master at Belleville will hold a court there June 6, for the purpose of adjudicating upon the claims of creditors and other matters referred to him. (May, pg. 153.)

At the annual meeting held at Trenton, Ont., May 20, the following directors were elected: S. J. Ritchie, C. E. Ritchie, of Akron, Ohio; T. M. Kirkwood, of Toronto; R. Fraser, W. S. Jaques, M.D., and Geo. Collins, of Trenton, Ont.

Central Ry. of Nova Scotia.—The act passed at the recent session of the N.S. Legislature respecting this line ratifies the agreement entered into in July, 1902, by which the line was acquired by Mackenzie, Mann & Co. for amalgamation with the Halifax and South Western Ry. The act vests the line in the H. and S.W. Ry. Co., subject to a first mortgage to the Province to secure an advance of \$425,000, and a second mortgage to Mackenzie, Mann & Co. to secure \$100,000, which amounts represent the purchase price for the line and the 150,000 acres of land grant. The principal of the mortgage is repayable in 40 years. (May, pg. 153.)

Chateaugay and Northern Ry.—The Great Northern Ry. Co. of Canada has secured a lease of the charter and undertaking of the C. and N. Ry., now under construction from Bout de l'Isle, where the Ottawa river is being bridged, to Joliette. The terms of the lease will be laid before the shareholders of the G.N.R. on June 2, when ratification will

be asked. We are informed that the press reports that the Montreal Terminal Ry. has also been leased by the G.N. Ry. Co., are incorrect. The C. and N. Ry. will enter Montreal over its own rails, but an arrangement has been made for the use of a portion of the right-of-way of the Montreal Terminal Ry.

The C. and N. Ry. was incorporated by the Quebec Legislature in 1895, and its history is considerably mixed up with the Montreal Island Belt Line Ry. and its successor, the Montreal Terminal Ry. In 1894 the M.I.B.L. Ry., then a Quebec company, received a Dominion charter, and in 1895 an agreement was entered into with the C. and N. Ry. Co. for the purchase of 13 miles of its railway, from Hochelaga to Pointe aux Trembles, in consideration of \$25,000 and an issue of bonds and common stock; and an act was passed in 1896 confirming the agreement. A

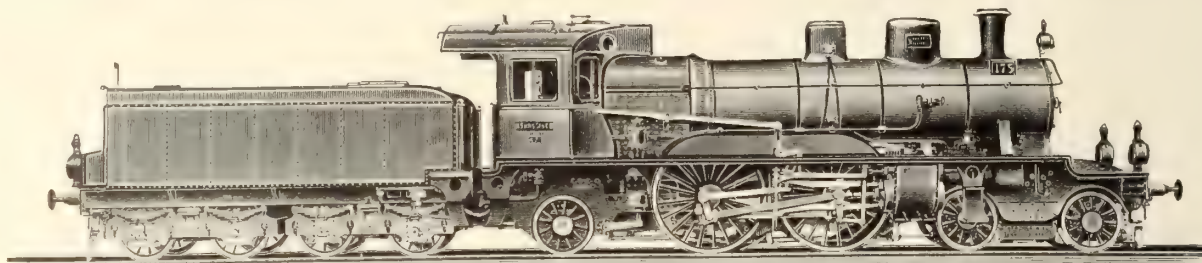
sale to the M.I.B.L. Ry. Co. on Mar. 10, 1898, of a portion of the line of railway of the C. and N. Ry., then being operated, was confirmed, and was declared to constitute the commencement of the construction of the main line of the Company's railway. The Dominion Parliament in 1899 authorized the M.I.B.L. Ry. Co. to change its name to the Montreal Terminal Ry. Co., and gave it power to acquire the charter, etc., of the C. and N. Ry. Co. The C. and N. Ry. Co. has been granted a subsidy of \$3,200 a mile for 42 miles of line, from Hochelaga ward, Montreal to Joliette; \$150,000 towards the construction of the bridge at Bout de l'Isle, and \$15,000 towards the construction of a bridge at Lac Ouareau river.

Columbia and Western Ry.—The B. C. Legislature has passed an act ratifying an Order-in-Council, dated Mar. 18, 1902, rescinding certain provisions of an Order-in-

Council dated Sept. 4, 1901, respecting the land grant of the C. and W. Ry. The acreage involved is 900,000, and the lands are situated in the south-eastern district of Kootenay, and it is contended that they cannot be considered as being "practically contiguous" to the railway. In the course of the discussion some allegations of alleged corruption in connection with the delivery of the Crown grants of the lands were made by John Oliver, a member of the Legislature, and an investigation into the whole matter was directed to be made by a committee of the House. The investigation is in progress.

Dominion Atlantic Ry.—Gross earnings for Mar. \$56,200, against \$60,226 for Mar., 1902; making for three months ended Mar. 31 \$150,000, against \$169,405 for same period 1902.

Grand Trunk Ry.—The application of the G.T.R. to increase its 4% guaranteed stock

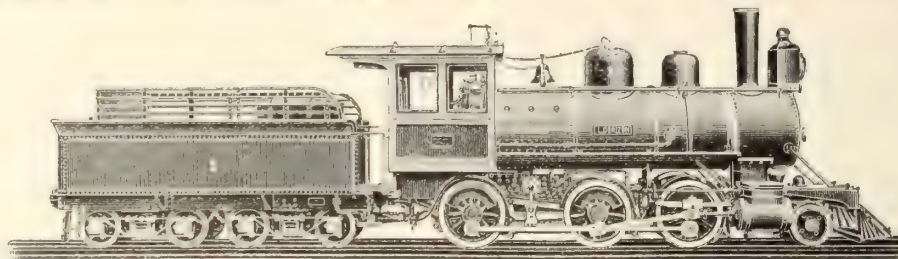


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up to an amount of £10,000,000—not \$10,000,000 as stated in our last issue—has been the source of considerable discussion before the Railway Committee of the House of Commons. W. H. Biggar, K.C., Assistant General Counsel, explained that the money was required for the purpose of double-tracking and improving terminal facilities, and that most of the additional amount to be issued would be expended in Canada. W. Wainwright, Comptroller, stated that plans had already been laid out for the expenditure of \$3,000,000 in Ontario in double-tracking, reducing gradients and improving terminal facilities. At the suggestion of the Minister of Railways a clause has been added making the issue of the additional stock, and the object to which it was to be applied subject to the approval of the Governor-in-Council. (May, pg. 153.)

Great Northern Ry. of Canada.—A meeting of shareholders has been called for June 2 to sanction the terms of an arrangement for leasing the undertaking of the Chateauguay and Northern Ry. (April, pg. 141.)

Hamilton Street Ry.—The percentage of earnings and mileage paid by the H.S. Ry. to the city for the three months ended Mar. was \$4,716.

Kent Northern Ry. Co.—In connection with the recent purchase of this line when certain of the bonds were presented for redemption, it was found that a large number of coupons had been cut off, and there was no record of them. With a view of settling the matter the New Brunswick Legislature at the last session passed an act providing that it will be presumed that these coupons have been paid unless they are presented within three months after notice. (Mar., pg. 105.)

Lake Erie and Detroit River Ry.—The following were elected directors at the annual meeting at Walkerville, Ont., May 5: F. H. Prince, Boston, Mass.; M. J. Carpenter, Detroit, Mich.; N. Erb, M. T. Cox, New York city; J. H. Walker, Walkerville, Ont. (Mar., pg. 106.)

The Lewiston and Youngstown Frontier Ry., extending from Old Fort and Fort Niagara Beach, Youngstown, to Lewiston, N.Y., 7 miles, has been taken over by the Niagara Gorge Rd. Co., which now operates through cars from Niagara Falls, N.Y., to Lake Ontario, about 15 miles.

London and Port Stanley Ry.—The proportion of the earnings of the line payable to the city of London for the past financial year was \$2,100, an increase of about \$1,300 over the previous year.

The lessees estimate that \$75,000 should be expended in strengthening bridges and other work on the line, but before incurring such an expenditure are asking the London city council to give a lease for 30 years upon the surrender of the present one, which has 11 years yet to run. A committee has been appointed to confer with W. Woollatt, General Superintendent Lake Erie and Detroit River Ry. division of the Pere Marquette Rd., the lessee. (May, pg. 154.)

London, Ont., Street Ry.—Gross earnings:

	1902-3.	1901-2.	Increase or Decrease.
Dec.	\$15,041.80	\$12,947.48	\$2,094.32
Jan.	12,132.54	10,117.60	2,014.94
Feb.	10,716.42	8,894.78	1,821.64
Mar.	11,533.68	10,233.21	1,300.47
Apr.	11,818.06	9,941.94	1,876.12
	\$61,242.50	\$52,135.01	\$9,107.49

Manitoba Ry. Co.—A special general meeting of shareholders was held in Winnipeg, May 5, for the purpose of authorizing the issue of 5% bonds for \$5,576,800, payable in 50 years, to retire bonds of the Northern Pacific and Manitoba Ry., and to secure payment of this debt and interest by a mortgage

deed of the Company's property and assets, and to approve by-laws for the issue of capital stock and other purposes. The Manitoba Ry. Co. is an amalgamation of the Northern Pacific and Manitoba Ry., the Portage and Northwestern Ry., the Winnipeg Transfer Ry., and the Waskada and Northeastern Ry., all of which lines were leased by the Northern Pacific Ry. Co. to the Manitoba Government and subsequently re-leased to the Canadian Northern Ry. Co. The bond issue authorized on May 5 does not create any new indebtedness, but simply retires existing bonds of the N. P. and M. Ry. Co.

Michigan Central Rd.—The report presented at the annual meeting in Detroit, Mich., May 7, showed gross earnings \$19,045,083, of which \$13,270,220 was from freight. The expenses, including taxes, were \$14,918,448. The earnings showed an increase of \$554,800 and the expenditure an increase of \$721,500. The net earnings were \$3,577,578, against \$3,744,309 for 1901.

The old board was re-elected, except F. S. Winston, who was replaced by J. P. Morgan.

Middleton and Victoria Beach Ry.—It is reported that Mackenzie, Mann & Co. are negotiating for the purchase of this line, now under construction from Middleton to Victoria Beach, N.S. This line would give the Central Ry. of Nova Scotia, which they acquired in 1902, a port on the Bay of Fundy.

Montreal St. Ry.—Earnings and expenses for April:—

	1903.	1902.	Increase or Decrease.
Passenger earnings.	\$170,050.12	\$152,524.57	\$17,525.55+
Miscellaneous earnings	2,035.94	1,865.16	170.78+
Total earnings	172,086.06	154,389.73	17,696.33+
Operating expenses	107,875.59	83,850.03	24,025.56+
Net earnings	64,210.47	70,539.70	6,329.23-
Fixed charges	19,717.20	15,847.71	3,869.49+
Surplus	44,493.27	54,691.99	10,198.72-
Expenses % of car earnings	63.44	54.97	

From Oct. 1, 1902, to April 30:

	1902-3.	1901-2.	Increase or Decrease.
Passenger earnings	\$1,170,294.08	\$1,067,405.81	\$102,888.27+
Miscellaneous earnings	19,283.25	11,703.94	7,579.31+
Total earnings	1,189,577.33	1,079,109.75	110,467.58+
Operating expenses	759,931.55	679,457.46	80,474.09+
Net earnings	429,645.78	399,652.29	29,993.49+
Fixed charges	119,855.79	108,234.37	13,621.42+
Surplus	309,789.99	293,417.92	16,372.07+
Expenses % of car earnings	64.93	63.66	

Interest on M.P. & I. Ry. Co.'s bonds owned by the Co. not included.

Montreal Terminal Ry.—See Chateauguay and Northern Ry.

New Brunswick Ry.—At the last session of the N. B. Legislature, an act was passed, re-acquiring from the syndicate holding the land grant of the N. B. Ry., now part of the C.P.R., an area of about 60,000 acres in Madawaska county, at 75c. an acre, for the purpose of opening it up for settlement. The price to be charged settlers is to be 75c. an acre plus cost of survey.

New Brunswick Southern Ry.—The N.B. Legislature, at the recent session, passed an act confirming the issue of bonds and stock of the N.B.S. Ry. Co., and the transfer to it of the Shore Line Ry. The Shore Line Ry. extends from St. John to St. Stephens, N.B., 82.50 miles, and was originally known as the Grand Southern. It has 2.50 miles of sidings, and is laid with 50-lb. steel rails. Its rolling stock consists of 3 locomotives, 2 first-class cars, 2 second-class cars, 5 cattle, freight and box cars, 16 platform cars, 1 snow plow, and 1 flanger, owned, and 3 box cars and 20 platform cars hired. The capital consists of \$500,000 common stock, on which \$101,000 is paid up, and \$800,000 of bonds. It received \$413,000 by way of subsidy from New Brunswick and \$3,000 of municipal subsidy, and

had, June 30, 1902, a floating debt of \$4,317.90. The total paid-up capital is \$517,000, and the line cost \$1,813,457.63. There was a net loss of \$9,735.75 on operation in 1901-02.

Ottawa and New York Ry.—In connection with the sale of the New York and Ottawa Ry., which connects with the O. and N. Y. Ry. at Cornwall, Ont., and extends to Tupper Lake, N.Y., 68.4 miles, which was announced for May 14, and adjourned to Sept. 13, representatives of the Delaware and Hudson Rd. recently inspected both lines and the bridge over the St. Lawrence river. (New York and Ottawa Ry., Jan., pg. 27.)

Ottawa Valley Ry.—A special meeting of shareholders will be held in Montreal, June 9, to elect directors and consider an agreement for the purchase of the Carillon and Grenville Ry. The C. and G. Ry. is the only broad (5 ft. 6 in.) gauge railway now operated in Canada.

Pere Marquette Rd.—The P. M. Rd. Co., of Indiana, has executed a mortgage to the Eastern Trust Co., to secure an issue of 30-year 4% gold bonds to the amount of \$2,500,000; these bonds are guaranteed by the P.M. Rd. Co., of Michigan, as to principal and interest. The Marquette and Bessemer Dock and Navigation Co., which has acquired the property of the U.S. and Ontario Steam Navigation Co., has executed and recorded a mortgage to the Eastern Trust Co., as trustee, to secure an issue of 30-year \$500,000 4½% gold bonds. The bonds are guaranteed principal and interest by the Pere Marquette and the Bessemer and Lake Erie railroad companies.

The annual report shows that net earnings from operations were \$993,136, an increase over last year of \$258,561—this, with increased taxes of \$107,492, and a betterment equipment charge of \$114,641, not properly chargeable to operating account. Comparison of income account shows gross earnings of \$9,955,315, against \$9,201,175 last year. The percentage of operating expenses to gross earnings is 75.44%, against 77.37% last year. (May, pg. 155.)

Peterboro' and Ashburnham Ry.—A proposition has been made to the town council by the American Cereal Co. to operate the street railway now lying idle. (June, 1902, pg. 196.)

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for March, \$2,795.92, against \$11,091.28 for March, 1902; net earnings for four months, ended March 31, \$6,861.64, against \$29,132.10 for same period, 1901-2.

Quebec Central Ry.—Gross earnings for April, \$56,422.59; working expenses, \$35,894.01; net earnings, \$20,528.58, against \$16,740.85 net for April, 1902. Net earnings for four months to April 30, \$45,742.09, against \$47,077.92 for same period, 1902.

Quebec and Lake St. John Ry.—Gross earnings for Feb., \$20,307, against \$20,719 for Feb. 1902, making for two months, ended Feb. 28, \$43,104, against \$43,183 for same period, 1902.

Quebec Ry., Light and Power Co.—A meeting of shareholders was held May 4, for the purpose of rescinding a resolution passed Oct. 9, 1899, authorizing the directors to issue the unissued common stock amounting to 5,000 shares; and to authorize the issue of 5,000 preference shares of \$100 each, such stock to rank after the first mortgage bonds, and to be entitled to a cumulative dividend, not to exceed 7%. (Mar., pg. 107.)

Reid Newfoundland Co.—At the current session of the Newfoundland Legislature, the Premier explained that it was the intention of the Government to provide for the balance, \$300,000, of the award to this company, together with the cost of the arbitration, legal fees, etc., by the sale of debenture bonds charged upon the revenues of the colony.

Temiscouata Ry.—There was a loss of \$1,900 in the working of this line for Feb.

Toronto, Hamilton and Buffalo Ry.—Earnings for April, \$51,323.67, against \$41,112.97 for April, 1902, making for 11 months ended April 30, \$444,365.20, against \$427,399.37 for same period, 1901-2.

The Von Echa Co., chartered under the laws of the State of Virginia, U.S.A., to carry on business as railway, bridge and general contractors, has been registered as an extra-provincial company in Ontario, with offices at Woodstock, Ont., its attorney being S. R. Ickes. The company constructed the Woodstock, Thames Valley and Ingersoll Electric Ry., acquired the Brantford Street Ry., and is constructing the Grand Valley Ry., as an electric line.

White Pass and Yukon Ry.—Gross earnings from July 1, 1902, to April 14, 1903, \$1,270,658.

Yarmouth, N.S., Street Ry.—Press reports state that there is a prospect of this electric line being re-opened. It was closed down a short time ago owing to the continued loss.

Among the Express Companies.

The Dominion Ex. Co. has re-opened for the season of navigation its offices at Fort Frances, Emo, and Rainy River, Ont.

The Canadian Ex. Co. has extended its service on the Tillsonburg, Lake Erie and Pacific Ry., to cover the extension from Tillsonburg to Ingersoll, Ont.

The Alaska Pacific Ex. Co. has issued a circular giving information respecting the various steamship and express routes into Alaska during the summer season.

The Dominion Ex. Co. has opened a route on the Esquimalt and Nanaimo Ry. between Nanaimo and Ladysmith, B.C., and has opened an office at the latter place.

J. Hetherman, hitherto Canadian Ex. messenger between Toronto and Detroit, has been appointed acting route agent for the Northwestern Ontario district. Headquarters, Stratford, Ont.

P. G. Charles, who has been appointed Superintendent of the Alaska Pacific Ex. Co., vice D. C. Jackson resigned, has his head-

quarters at Seattle, Wash., and will have direct charge of the general business and accounts of the company.

The Canadian Ex. Co. elected the following at the recent annual meeting:—President, C. M. Hays; Vice-President and Manager, J. Bryce; Secretary and Treasurer, F. Scott; other directors: W. Wainwright, H. Paton, J. Bell, K.C.; C. Percy.

The Alaska Pacific Ex. Co. will operate a service on the steamers of the Northern Commercial Co., and the North American Trading and Transportation Co., reaching all points on the Lower Yukon, Koyukuk and Tanana rivers, and will open offices at the principal points.

A. W. Lee, heretofore route agent of the western division of the Dominion Ex. Co., Winnipeg, has been transferred to Vancouver, B.C., succeeding W. J. Kirby, assigned to other duties. John Knox has been appointed acting route agent, with headquarters at Winnipeg, succeeding A. W. Lee, transferred.

The Quebec Legislature, at its last session, amended the act relating to taxes upon com-

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This Company's Systems have been adopted by 130 of the principal Railroads of the United States and by the great Sleeping Car Company. They consist of The Steam Jacket System of hot water circulation, The Direct Steam Regulating System and Straight Steam (plain piping).

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mercial corporations by imposing upon companies carrying on an express or forwarding business in the province a tax of one-tenth of 1% upon the paid-up capital up to \$1,000,000, and \$25 for every \$100,000 of paid-up capital over that amount; and an additional tax of \$50 for each place of business in Montreal and Quebec, and \$25 for each place of business located elsewhere in the Province.

C.P.R. Coal Cars.

The C.P.R. side-door coal cars, which are illustrated on this page, were designed with a view to securing a vehicle for the carriage of coal which would retain its status as a coal car to the end and not degenerate into a sort of coal sack by sagging in the middle and bulging at the sides. The elimination of the chance of sagging and bulging which are the two evils which coal cars are heir to, was not rendered any easier by the fact that the car was required to have side doors, but the form of construction finally adopted has, it is said, given excellent results in service.

The outside sills are timber, 14 in. deep by 5 in. wide. The intermediate sills are really composed of two members each 9x5 in., spaced 1 in. apart, with packing piece between, and through these sills the long U-bolts, which pass around the stake pockets are bolted. In addition to this, from each stake, a rod runs right across the car through the floor; a bolt at the end of the stake passing through the side sill, secures the stakes very firmly to the outside sills. The double intermediate sills are placed within 5 in. of the center sills and 22 in. from the outside sills, so that the central portion of the car, which cannot receive any stiffening from the side walls, is carried on six timbers and is thus made quite rigid. The whole car floor is also supported by six through truss rods of extra depth below the needle beams, so that the chance of sagging is reduced to what may be called a negligible quantity.

The bulging propensity which coal cars evince, is also guarded against. Although the stakes are 4 ft. apart and contain a side door between each, the full width of the panel, the door itself is 3 ft. high, while the total height of the side is 5 ft. 1-2 in. Therefore the coal car side is solid all along the upper 2 ft. of its height, and is reinforced by a longitudinal timber of triangular section, resting on top of the stakes and capped by an angle iron, the full length of the car. This coping of wood and iron, together with the fact that the stakes are all outside the side planks, makes bulging a most difficult, if not impossible, feat for the load of coal inside to perform.

The ends of the car have no stakes, but the "coal box" is anchored down by flat iron straps which grip the top plank and are bolted through the end sills. Six flat corner plates unite end and side planks.



CANADIAN PACIFIC RAILWAY COAL CAR.

The side doors open flush with the floor, and when in position are held closed by two bolts in each, which drop into staples on the side sills and cannot shake out or let the doors open by accident. These doors are provided with permanent rods or latches which hold them open when required. Neither hinges, latches nor any door attachments extend beyond the line of the stakes, so that there is nothing along the sides of the car to catch on anything or be torn off.

The car may be considered as a partial automatic side dumper, and if all the doors were open perhaps about 25% of the load would be discharged, the rest would have to be shovelled out by hand. The car is 40 tons capacity, having about 1,488 cu. ft. volume, and weighs light about 37,000 lbs. The design shows much careful working out of details and the clever adaptation of means to an end, upon which the officials of the C.P.R. mechanical department may reasonably congratulate themselves. This description is adapted from *Railway and Locomotive Engineering*.

The Canadian Northern Ry., on June 15, inaugurates a daily steamboat express train between Port Arthur, Ont., and Winnipeg, 439 miles. Each train will consist of locomotive and five cars, and will be solid vestibuled, with dining and sleeping cars, and fitted with all the latest appliances. The rolling stock for these trains is new, and at the outset the service will be carried on by three trains. Additional trains will be added as occasion requires.

June Birthdays.

Many happy returns of the day to Harry Abbott, President Vancouver and Lulu Island Ry., ex-General Superintendent C.P.R. at Vancouver, B.C., born at Abbotsford, Que., June 14, 1829.

F. F. Backus, General Freight and Passenger Agent, Toronto, Hamilton and Buffalo Ry., at Hamilton, Ont., born at Rochester, N.Y., June 4, 1860.

Archer Baker, European Traffic Manager C.P.R., at London, Eng., born at York, Eng., June 21, 1845.

Edgar Berryman, C.E., Montreal, Assistant Engineer, Lake Superior Division, C.P.R., born at Queenston, Ont., June 27, 1839.

C. R. Boucher, Divisional Engineer Temiskaming and Northern Ontario Ry., North Bay, Ont., born at Southampton, Eng., June 4, 1847.

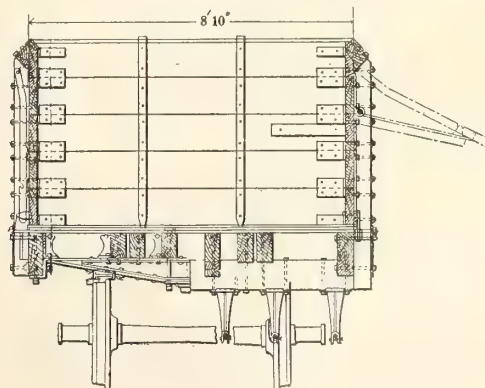
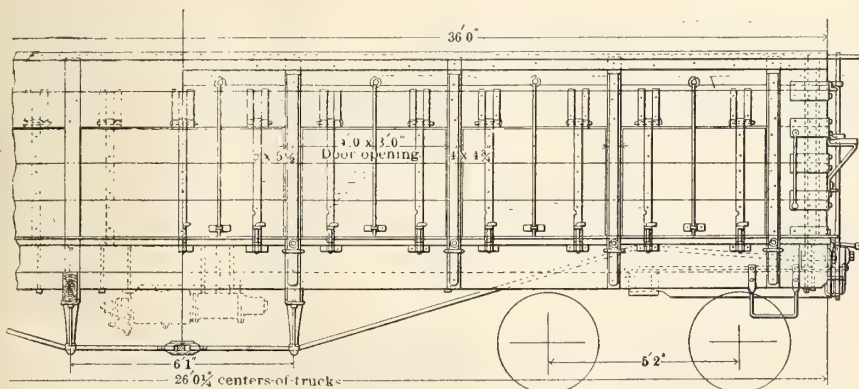
F. P. Brady, General Superintendent Central Division C.P.R. at Winnipeg, born at Haverhill, N.H., June 22, 1853.

J. E. Dalrymple, General Freight Agent, Central Vermont Ry., at St. Albans, Vt., born at Montreal, June 1, 1869.

W. H. D'Arcy, Claims Agent, C.P.R., at Winnipeg, Man., born at Manorhamilton, Leitrim, Ireland, June 23, 1859.

A. E. Doucet, Chief Engineer Quebec and Lake St. John Ry., born at Montreal, June 9, 1860.

W. F. Fitch, President and General Manager, Duluth, South Shore and Atlantic Ry., and Mineral Range Rd., at Marquette, Mich., born at Circleville, Ohio, June 28, 1839.



CANADIAN PACIFIC RAILWAY COAL CAR.

A. A. Goodchild, Auditor of Statistics, C. P.R. at Montreal, born at Peckham, London, Eng., June 3, 1866.

G. W. Hibbard, General Passenger Agent, Duluth, South Shore and Atlantic Ry. and Mineral Range Road, at Marquette, Mich., born at St. John's, Que., June 15, 1852.

L. R. Johnson, Assistant Superintendent of Rolling Stock, C.P.R., at Montreal, born at Abingdon, Berks., Eng., June 22, 1855.

A. C. Lytle, Granby, Que., Superintendent and General Freight and Passenger Agent, Orford Mountain Ry., at Eastman, Que., born at Hemmingford, Que., June 6, 1854.

W. R. MacInnes, Freight Traffic Manager, C.P.R., at Montreal, born at Hamilton, Ont., June 7, 1867.

E. H. McHenry, Chief Engineer, C.P.R., at Montreal, born at Cincinnati, Ohio, June 25, 1859.

C. E. McPherson, General Passenger Agent, C.P.R., at Winnipeg, born at Chatham, Ont., June 7, 1861.

W. D. Matthews, director C.P.R., Toronto, born at Burford, Ont., June 22, 1850.

H. C. Pearce, Purchasing Agent, Minneapolis, St. Paul and Sault Ste. Marie Ry., at Minneapolis, Minn., born June 1, 1850.

F. Price, Master of Transportation, G.T.R., at London, Ont., born at Montreal, June 11, 1864.

Aiding the Mercantile Marine.

The following order-in-council was passed at Ottawa April 27: "Whereas it has been strongly urged by prominent representatives of water transport interests in Canada and by others concerned with the trade and commerce of the country that the experiment be tried of a total abandonment of tolls for the use of the canal system of the Dominion in the hope and expectation that exemption from toll will lead to a considerable increase in the trade and traffic of the inland waters and be beneficial to the country at large. Therefore, the Governor-in-Council is pleased, in virtue of the provisions of the Revised Statutes, chap. 37, sec. 13, intituled "An Act respecting the Department of Railways and Canals, to declare exempt from the payment of tolls for passage through all and any of the Government canals, all vessels, rafts, cribs or other craft, and also all goods whatsoever carried therein or thereon, and all persons

and animals so carried, such exemption to date from the opening of the present season, April 13, 1903, and to continue for a period of two seasons of navigation only, viz., to the end of the season of 1904."

The Dominion Government has decided to abolish the steamboat inspection dues and tonnage dues on Canadian steamers. These dues, however, are imposed by statute and their abolition must also be by statute, so that no change can be made until an act carrying into effect the decision of the Cabinet has been passed. Pending the passing of such an act the Department of Marine has instructed the different steamboat inspectors to issue their certificates without the production of a customs receipt for inspection fees and tonnage dues. While no instructions have been given in regard to the non-collection of fees for the inspection of U. S. vessels trading to Canadian ports, it is understood that they are to be placed on the same footing as Canadian vessels. As a result of the abolition of these fees and dues Canadian steamers touching at U.S. ports will be relieved of the necessity of paying similar dues there. There is a general statute in force in the United States providing that no fees for inspection are to be charged

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upon vessels trading to ports in the U. S., provided that the countries in which they are registered do not charge inspection fees upon U. S. vessels trading there. The Canadian statute was passed in 1898, and power was given to the Governor-in-Council to direct "that this Act or certain provisions thereof shall apply to, or shall not apply to any steamboat or class of steamboats registered elsewhere than in Canada." In 1901 the U. S. authorities represented to the Department of Marine that Canadian vessels trading to the U. S. were not subject to inspection fees there, while fees were charged on U. S. vessels coming to Canada. As a result, an Order-in-Council was passed directing that fees were not to be charged for the inspection of U. S. vessels trading to Ontario ports, and returning to vessel owners the money up to that time collected for fees. This did not satisfy the U. S. authorities, for in 1902 a Treasury minute was issued directing that fees were to be collected on all Canadian vessels trading to U. S. ports, it being stated that Ontario was not a country, and that to entitle Canadian vessels to the exemption, U. S. vessels must be relieved of the payment of inspection fees in all parts of the Dominion.

So far no change has been made in the way of amending the rules of the road to conform with the U. S. rules of the road. The question raised at the recent meeting of the Dominion Marine Association respecting the examination of engineers on the minor inland waters, is under consideration by the Department of Marine.

Canadian Dry Docks.

The increasing number of vessels engaged in ocean and coasting trade in Canada has brought out the fact that the accommodation at dry docks and marine railways is not at all equal to the demands. On the Atlantic coast St. John, N.B., has no accommodation for the repair of the big steamers frequenting the port, while on the Pacific coast the accommodation for commercial vessels is deficient. In 1902 vessels were kept waiting at Quebec owing to the calls made for space; and Montreal has no place where ocean-going vessels can be repaired. For some years a project has been under consideration for the construction of a dock at St. John, N.B., and it is said that work will be commenced this year. A commission of engineers is making an investigation as to the best method of providing a dry dock for Montreal. On the Great Lakes there are docks at Kingston, Port Dalhousie, Owen Sound and Collingwood, which provide for vessels from 180 to 300 ft. long, but with the increasing size of vessels larger docks are required on Lake Ontario and on the upper lakes. The docks at Collingwood is being enlarged to meet modern requirements, but it will not be sufficient to meet all the requirements of the upper lakes. With a view of aiding the construction of dry docks, the Dominion Government has decided to increase the subsidy payable to companies owning docks from 2% to 3%. Plans, which have to be sufficient to meet the requirements of the district; have to be approved by the Governor-in-Council, and the subsidy will be payable on the value of the work as estimated by the Minister of Public Works on the completion of the dock, and annually for 20 years, the amount payable not to exceed \$30,000 a year. The Government proposes in the act to make such arrangements as will prevent the construction of unnecessary docks, or the construction of a large number of small docks of little value to the country.

The Canadian Northern Ry. Co. has given \$288 for extra prizes in the cattle classes at the Winnipeg Industrial Exhibition.

Recent New Brunswick Legislation.

The following acts relating to transportation and allied interests were passed at the recent session of the N.B. Legislature:

Increasing the capital stock of the St. John Ry. Co.

Confirming the issue of bonds and stock of the New Brunswick Southern Ry. Co., and confirming the transfer of the Shore Line Ry. to the N.B.S. Ry.

Authorizing the Surveyor-General to purchase lands from the New Brunswick Ry. Co., and to sell the same to bona fide settlers.

To incorporate the Alexander Gibson Co. (Ltd.) The property to be taken over includes the Canada Eastern Ry.

Amending the act incorporating the Woodstock Electric Ry. Light and Power Co.

Facilitating the opening up to settlement of lands of the New Brunswick Ry. Co.

Amending the acts relating to the St. John Valley and Riviere du Loup Ry.

Incorporating the Kent Northern Ry. Co.

Incorporating the Beersville Coal and Ry. Co.

Incorporating the Kent Northern Extension Ry. Co.

Relating to the Imperial Dry Dock Co.

Amending and adding to the Railway Act.

Aiding the construction of certain railways.

Amending chap. 10, 51 Vict., relating to the foreclosure of insolvent railways.

Relating to the building of structures on wharves in St. John.

The Westinghouse Electric Manufacturing interests have decided to enter the Canadian field more actively and to establish works at Hamilton, Ont., where the Westinghouse Manufacturing Co., Ltd., has had an air-brake plant for several years. It is expected that the charter of the Westinghouse Mfg. Co. will be utilized, and that the capital of that company, \$500,000, will be increased to \$2,500,000. The larger portion of this will no doubt be taken by the Westinghouse interests, but it is probable that some stock will be disposed of in Canada, probably by private subscription. Ahearn & Soper, of Ottawa, will probably have the placing of this, and it is likely that they will continue to handle the sales department as heretofore. The Westinghouse Manufacturing Co. originally had a site of about four acres in Hamilton. Some months ago this was added to by the purchase of 7½ acres additional, which will be utilized for the new plant. It is the intention to manufacture the various lines of electric machinery, apparatus, etc., now made by the Westinghouse Electric and Manufacturing Co. at Pittsburg, Pa.

Huntsville and Lake of Bays Ry.—Surveys have been completed for the mile of railway which the Huntsville, Lake of Bays and Lake of Simcoe Navigation Co. proposes to construct at the portage of the Lake of Bays. It is proposed to go on with the grading at once, and to have the line in operation for this year's tourist traffic. (April, pg. 119.)

The Merchant Service Guild of Canada is the successor of the Victoria Shipmasters' Association. J. J. Martin is Secretary-Treasurer of the National Executive and of the Pacific coast division, with office at 32 Langley St., Victoria, B.C., and there is also an office at Lefevre Block, Vancouver, B.C. The Pacific coast division has branches for the Victoria, Vancouver, New Westminster, Kootenay, Upper Columbia river, and the Yukon districts. The Guild publishes a four-page journal, giving news of the members and notes on the work of the organization.



THE FIRST NORTHERN RAILWAY TICKET.

The above is a facsimile of the first ticket used on the Northern Ry. between Toronto and Barrie, Ont., on May 16, 1853, reproduced from Robertson's Landmarks of Toronto.

Grand Trunk Ry. Betterments, Etc.

Victoria Jubilee Bridge.—Negotiations are in progress between the G.T.R. and Montreal Street Ry. officials with a view to the latter company operating its cars across Victoria Jubilee Bridge.

Montreal Freight Yards.—Large areas of land between the upper Lachine road and the canal adjacent to Montreal are reported to be under option to the G.T.R. The object in view is the extension of the freight yards to such an extent that 15,000 cars can be accommodated.

Montreal-St. Henri Elevated Tracks.—Plans have been prepared by the Montreal city officials for the elevation of the G.T.R. tracks from Bonaventure station to St. Henri. The work is estimated to cost \$2,500,000.

Bonaventure Station, Montreal.—We were recently advised that the engineers were preparing plans for the changes contemplated at this station, and that it was expected that a decision would be reached about the end of June as to what would be done. Press reports state that when the interior is re-arranged it will be practically a new station building. The other work contemplated includes the roofing over of the whole of the platforms. This was outlined by the President at the semi-annual meeting recently held in London, Eng. (Dec., 1902, pg. 405.)

Kingston.—An overhead bridge near the tannery, at Kingston, Ont., is to be raised so as to comply strictly with the law.

The city council has appointed a committee to confer with the officials as to possible changes at the G.T.R. junction, and the location of a new station nearer the centre of the city than the present one.

Toronto Freight Yards.—F. H. McGuigan, Manager G.T.R., and the local officials were recently engaged in laying out the track space in the new freight shed grounds between John and Simcoe streets. (May, pg. 177.)

Hamilton Improvements.—The agreement respecting the improvements at Hamilton has been signed by the Mayor, for the city council, and the G.T.R. officials. The work will be proceeded with at once. (Mar., pg. 89.)

Hamilton-Niagara Double-Track.—The double-tracking from Hamilton to Niagara Falls has been completed, and trains were operated over it May 26. It is estimated that the work has cost about \$1,250,000. The section recently completed was between Jordan and St. Davids, and included some of the most difficult work on the whole 43 miles. Curvature has been straightened out, and gradients have been reduced, so that the line is now first-class in every respect. The heaviest work, however, was the bridge work. These included a double-deck steel girder bridge, 1,200 ft. long, over the Jordan river; a 450-ft. bridge across Twelve-mile creek; another over the old Welland canal; a three-truss drawbridge over the new Welland

canal, and a girder bridge over the Michigan Central tracks near Merrittton. The track has been laid with 79-lb. rails. A large water-tank has been erected at Merrittton, and a Y put in long enough to take a whole train. The old track through the tunnel under the canal will be maintained for use in cases of emergency. Trailing switches have been put in at all necessary points. (May, pg. 177.)

Brantford Deviation.—The earthwork on the Lynden-Brantford cut-off was expected to be completed towards the end of May, when tracklaying would be commenced by the company. The grade is 18 ft. wide where the fill is less than 6 ft., and 20 ft. wide where it is over 6 ft. J. A. Dart was the contractor for the earthwork.

In connection with this deviation considerable work is in progress in Brantford, including the lowering of the tracks of the Tillsonburg-Harrisburg branch on St. Clarence St.

A number of officials were in Brantford May 10, looking into the question of the new station which it is proposed to erect on an early date on the site of the present building. (May, pg. 177.)

Stratford Shops and Station.—On the recent visit of the President and other officials to Stratford, C. M. Hays, 2nd Vice-President and General Manager, stated that the projected extension of the shops depended upon the condition of the labor market; in Stratford labor conditions had hitherto been satisfactory. The improvement and extension of the shops, he expected, would soon follow.

Referring to the proposed new station, the President suggested that the city should give

the company a bonus towards erecting it. (May, pg. 177.)

Port Huron-Chicago Double-tracking.

We were advised, May 13, that trains were being operated on the G.T. Western Ry. on the following sections between Port Huron, Mich., and Chicago, Ill.; Port Huron and Durand, Mich., 81.5 miles; Bancroft to Shaftsbury, Mich., 19.4 miles; Lansing to Millets, Mich., 4.7 miles; Pottersville to Charlotte, Mich., 6.4 miles; Nichols to Battle Creek, Mich., 1.4 miles; Grangers to Studebaker, Ind., 9.8 miles; Olivers to Haskells, Ind., 35.7 miles; Sedley, Ind., to Chicago, Ill., 50 miles. Total 208.9 miles, out of a total of 335 miles. The portions of the double tracking at present under construction are: Durand to Bancroft, Mich., 4.75 miles, 1½ miles of grade to make and rails to be laid after completion of grading; Haslett park to Cedar river bridge, Mich., 7.77 miles, or ½ mile east of Lansing, track laid and ballasting in progress; Millets to Pottersville, Mich., 7.50 miles, 1¼ miles of track being laid; Charlotte to Nicholls, Mich., 25 miles, track expected to be laid by June 1; Haskells to Valparaiso, Ind., 8 miles, track was expected to be laid during May. (Mar., pg. 89.)

Grand Trunk Pacific Ry.—The preamble of the bill for the incorporation of the company to construct a new transcontinental line in connection with the G.T.R., has been passed by the Railway Committee of the House of Commons, but the details are still under consideration. Sir C. Rivers-Wilson, President, G.T.R., and C. M. Hays, 2nd Vice-President and General Manager, G.T.R., appeared before the committee, and

stated the position of the G.T.R. in relation to the projected new line, and Mr. Hays stated that the section of the line from Quebec to Winnipeg would be constructed first, and that Canadian ports would be given the preference. A map, which was hung in the committee room, and to which objection was taken by some members of the committee, not only showed the proposed line and existing lines, but also the projected routes of all other lines for which charters are now in existence covering the northern and undeveloped portions of Canada. A reproduction of this map would be of considerable interest and value. The map showed a line from Quebec to near North Bay, Ont., thence to Winnipeg, passing north of Lake Nepigon, with a branch line to Port Arthur; from Winnipeg to Saskatoon, Assa., with a branch into Regina, Assa., thence to Battleford, Sask., with a branch to Calgary, Alta.; thence to Edmonton, Alta. From this point a line via the Yellowhead pass is shown, terminating at Bute inlet on the Pacific coast, and another via the Peace river or Pine river pass, terminating at Port Simpson, on the Pacific coast, with a branch to the Yukon territory. An alternative route is shown from Quebec westerly in an almost straight line to a tributary of the Moose river, almost due north of Missanabie, on the C.P.R. transcontinental line; thence following the route suggested for the line from North Bay. The eastern terminal of the G.T.R. in Canada is at Levis, Que., and the projected line would be able to connect with it over the Quebec bridge, now under construction. From this point it is proposed to construct a line to a Canadian winter port, but Mr. Hays did not inform the

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committee as to where the port would be. The New Brunswick members of the committee desire to have this port fixed at St. John, and resolutions favoring this have been passed by public bodies at different points in that Province. The distance from Quebec to Port Simpson by the projected line is 3,025 miles, while from Quebec to Vancouver by the C.P.R. is 2,975 miles, and Port Simpson is 500 miles nearer the Yukon territory than Vancouver. It is estimated that the maximum gradient on the prairie sections of the line will not exceed 26 ft. to the mile, and on the mountain section 91 ft. to the mile. The discussion on the details of the bill was resumed in committee, May 27.

Sir C. Rivers Wilson, accompanied by some of the directors and officers of the G.T.R., paid a visit to Winnipeg between May 13 and 27. In connection with this visit the Winnipeg Tribune published a very circumstantial account of the purchase of the Canadian Northern Ry. in the interests of the G.T.P.Ry. Co., some months ago. In the course of an interview Sir Rivers Wilson stated that negotiations had been in progress between himself and W. Mackenzie, President of the Canadian Northern Ry., but no agreement had been reached; he would welcome any basis of agreement by which the amalgamation of the two roads was possible; while a purchase of the C.N.Ry. would enable the G.T.P.Ry. to be constructed so much the sooner, a failure to secure it would not prevent the line from being completed. H. Sutherland, Executive Agent of the C.N.Ry. at Winnipeg, also denied the reports that there had been any purchase of the C.N.Ry. by G.T.R. interests. W. Mackenzie, President, C.N.R., stated to a Winnipeg Telegram correspondent in Toronto, May 25, in reply to a question, "You can say that the G.T.R. said, 'Sell out your control to us or we will build'; we have simply replied, first, last and all the time, 'The C.N.Ry. is not for sale.'" A Montreal despatch, dated May 27, says it is the general opinion in G.T.R. and C.P.R. circles there that a satisfactory agreement will be made between the G.T.P.Ry. promoters and Mackenzie, Mann & Co., by which the C.N.Ry. will be sold; that when the price has been fixed W. Mackenzie and D. D. Mann will go on the board of the G.T.P.Ry. Co., that payment will be made in cash and stock, and that Mackenzie, Mann & Co. will be given the contract for the construction of a big section of the line. At Detroit, Mich., May 30, Sir Rivers Wilson said it was possible that the G.T. Pacific Ry. would acquire the C.N.R. This was followed by an emphatic statement by D. D. Mann, who said: "There are no negotiations for the sale of the C.N.R. to the G.T.R., nor are there any negotiations for a union of any kind. They did want to buy a controlling interest, but we would not sell it. If we wanted to sell there would be lots of buyers. But our ambition is to build a great transcontinental line absolutely independent of any other, and as long as we are alive we won't sell the Canadian Northern." The situation appears to be that the G.T.R. interests are anxious to buy the C.N.R., but that Mackenzie, Mann & Co. have no desire to sell. No doubt the C.N.R. property, like everything else, has its price, but it is probably a pretty high one. Whether the G.T.R. people will be prepared to give it remains to be seen. (May, pg. 147.)

The act under consideration at the current session of the Dominion Parliament dealing with deck loads, does not make any alteration in the existing laws, but is intended to bring the Canadian and the British laws into verbal harmony.

The Midland Ry. Co. of Nova Scotia is reported to intend running six trains a day each way between Windsor and Truro, N.S.

The Northwest Railway Situation.

Victor Ross, a staff correspondent of the Toronto Globe, wrote from Brandon, Man., May 23, as follows:—"In the western vernacular, the heavy showers of a few days ago are described as the million-dollar rain. Since the belated downpour came the whole west has thrilled with new life, and now the most optimistic predictions of another record crop are being made. The latest general reports published by the railway companies of the successful completion of seeding operations, and of the appearance at many points of the young wheat, are making the rosy outlook rosier still. Everyone knows what another heavy yield means to the west. 'If we have another big crop we won't be able to keep the Americans back with a club,' said a railway man; 'they'll rush in here as we rush for a lunch counter out on the line.' To the railway man the prospect of a third good crop means that every effort made by the transportation companies during the past few years to catch up with the country's growth must be redoubled, that every nerve must be strained to prepare for the tremendous task of carrying the grain to the world's market.

"It is several years now since the country ran ahead of its railway facilities. In 1900 the C.P.R. could have handled the entire crop in four or five weeks, and the immigration business was not sufficient to cause worry. Even westerners who knew that the awakening of the land would come with the return of their brethren from across the line were taken by surprise, when, after the fine crop of 1901, the influx from the south began. No one could quite foresee the great harvest or define the feeling of restlessness in the northern States following upon the news of the excessive yield in Canada, which produced the tide of immigration, a tide that is still flowing to the north. The railways were unprepared, and they have never made up the start which the country obtained on them then. Last year grain blockades made the bountiful harvest a doubtful blessing, and hundreds of thousands of dollars were lost because the roads were not nearly equal to the demands made upon them.

"The C.P.R. suffered most through lack of motive power, which led to the company's offer of a bonus of 25% on the price of every engine completed within a certain time, and this offer was laid on the desks of the owners of locomotive works in Scotland, in Germany, and in the U.S. The era of prosperity was not altogether a good thing for the western farmer, for not until this year have the foreign factories been able to supply the demand for engines, but this spring the results of the efforts to bring the railway up to the requirements of the traffic are beginning to be seen.

"The country will be clear of last year's grain when the first consignments of the new crop are offered. The last of the largest fleet of grain-carrying vessels which ever assembled at Fort William has just sailed, and their united cargoes have relieved the situation wonderfully. There is now at Fort William elevator capacity, controlled by the Canadian Pacific Railway, for nearly 9,000,000 bush., as follows:—Elevator A, 1,250,000 bush.; elevator B, 1,250,000; elevator B annex, 1,700,000; elevator C, 1,500,000; elevator D, 1,500,000; elevator D annex, 1,800,000. The two annexed elevators included in this list are just being completed, and their combined capacity, 3,500,000 bush., represents the increase for this year. The hospital elevator at Port Arthur, where the injured grain is treated, has been enlarged from a capacity of 350,000 to 850,000 bush. The great tank elevator of the Canadian Northern Ry. at Port Arthur, with a capacity of 3,750,000 bush., will be duplicated, and the company hopes to

have storage for 7,000,000 bush. of grain there by the middle of the winter.

"But the enlargement of the lake elevators is a small thing compared with the development in interior elevator accommodation which will take place this summer. The railway companies allow the construction of an elevator at any point, furnishing the necessary site and constructing a switch from the main line for a nominal fee. The American has not been slow to see the possibilities, and since the first of the year there have been 249 applications for sites on the C.P.R. for interior elevators, including those on lines at present under construction. The Canadian Northern Ry. has had applications for 40 sites for elevators of from 25,000 to 50,000 bush. capacity. The elevator accommodation along its lines now is equal to 4,000,000 bush., and this season's building, it is confidently expected, will provide an additional capacity of 1,500,000 bush. One Winnipeg firm has orders on its books now for machinery for 100 elevators.

"Men who have been prominent in the colonization and land speculation schemes originating in St. Paul and Minneapolis are behind these applications, and certain elevator men have sold out their interests in the U.S., and will invest their money and give their time to the Canadian business. The largest elevator company which will operate in Canada has already gone into the lumber business, and will not only supply itself with construction material, but will establish lumber yards at many principal points. If the prospects for a good crop continue for a few weeks as favorable as they are now, a large number of these elevators along the lines of both companies will be proceeded with, and a high official of the C.P.R. told me that the elevator capacity this year, he thought, would be increased by fully 50%.

"West of Winnipeg the elevators at present existing on the C.P.R. have a capacity of some 18,000,000 bush., and they have now in them less than 5,000,000 bush. One-half of this grain will go to the mills at Keewatin and Winnipeg, and the remainder will be moved in very short order, even if there should not be another boat this season.

"As the seeding operations are completed the grain which has been held by the farmers in the Territories will be teamed in, but the danger of embarrassing the railway with last year's crop has now passed, and the officials put the latest date for the cleaning up at early next month.

"The conditions of the grain transportation situation this spring interfered considerably with the early rush of immigration. With navigation at Fort William open and the port of Montreal closed, a considerable number of C.P.R. locomotives had to be kept in the east to haul the grain shipments to St. John, and the west was deprived of this power. Since the opening of the summer ports, however, these engines have been returned to the west. Eighty new locomotives are being expected this summer. The first of them are now arriving in Montreal in sections, to be assembled there and be put into commission immediately. In regard to rolling stock, the works at Perth are turning out 12 cars a day and have been for months, and the Nova Scotia plant is under contract to supply additional cars for the fall. The Canadian Northern Ry. will receive over 100 new engines within the next year. This, with an increase in the long sidings between Winnipeg and the lake ports, has been the means adopted by the roads this year for widening the spout from the grain bin. The C.P.R. has another plan which has not been previously announced for lightening the pressure on the western grain service after navigation closes. Last year there were many farmers who, being delayed by the wet weather, had not marketed a load of wheat by the time the boats tied up for the winter

at Fort William. To carry this late wheat to the elevators at the port meant a haul of 426 miles from Winnipeg, a considerable item in severe weather, when every engine was required in western Manitoba and the Territories. This year the company proposes to construct an elevator of large capacity, to be situated within Manitoba, possibly at Brandon, and which will be an intermediate storehouse for grain shipped after the season of navigation is over. In this way the long haul to Fort William at a time when the despatch of the grain to that point is unnecessary will be obviated.

"The extension of railway lines this year will have an immediate effect on the delivery of this crop. It is necessary to live in Manitoba to realize how in many ways it is better served by its intricate railway system than is even Ontario. Gradually this network of railways is being extended into the Territories. Some 200 miles of new lines will be laid by the C.P.R. this summer, and between 300 and 400 miles by the Canadian Northern. Two years ago perhaps the most disastrous grain blockade occurred on the main line of the C.P.R. west from Grenfell to Regina, and, including Qu'Appelle, Indian Head and Wolseley, all large grain shipping points. A considerable amount of that grain, which depreciated in value through lack of shipping facilities, came from north of the Qu'Appelle river, considerably to the north of the main line. A tremendous amount of grain has been produced north of the river, but the distance that the wheat had to be teamed to the railway was a considerable drawback. Farmers were growing more grain than with their own horses they could team to market over the high ridges of the river. The banks of the Qu'Appelle are probably 200 ft. high, and it is no small matter to haul a crop up and down the hills to the elevators at any of the towns on the main line.

"A new line branching off at Kirkella, at the western boundary of Manitoba, will run parallel to the main line, and some 25 miles to the north of it into the famous Pheasant plains, and will, it is expected, connect with the Prince Albert branch at Wascana, just north of Regina. The location is now graded from Kirkella to Neudorf, and the road will be further extended 40 miles into the Pheasant plains this year. Indian Head's creditable position as the chief wheat shipping point of America may be lost, but the farmers of the district will be benefited by a railway past their farms and by this relief to congestion on the main line.

"Southeastern Assiniboia is being filled with settlers from the U.S. The first block of land sold by the C.P.R. to an American company was in this district, and since then American holdings have increased tenfold. A new line will pass through these settlements from Regina southeast to Arcola, to a junction with the line which runs westerly from Souris. The third important extension which the C.P.R. officials hope to accomplish this summer will be the stretching out of the Manitoba and Northwestern line, which runs into northern Assiniboia to the Quill lakes, almost on the border of Assiniboia and Saskatchewan. This year's extension will be 30 miles or more, and will possibly reach the large German Catholic colony. The terminus for this line, at present in view, is, apparently, Battleford.

"Another work as important to the farmer will be the introduction of intermediate sidings between stations eight miles or further apart. The object, of course, is to reduce the distance that grain is to be hauled in wagons, and all of this trackage will be available when double tracking operations are under way.

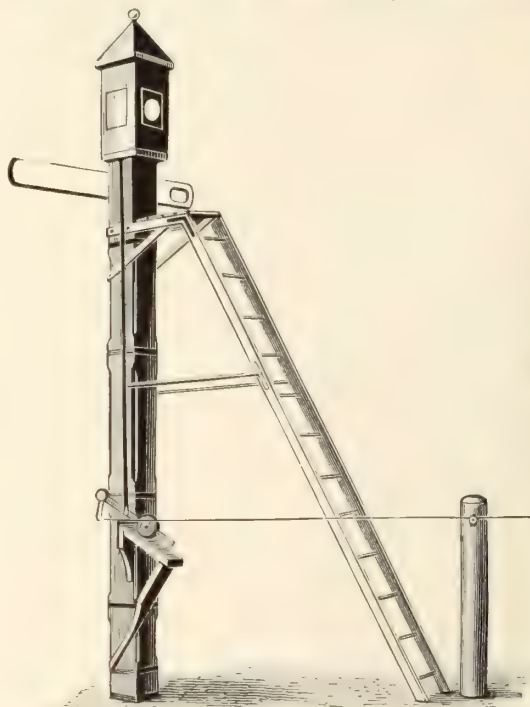
"The great season's work of the Canadian Northern Ry. will be the additions to the lines from Grand View westerly to the Saskatchewan and to Prince Albert. On these two lines

The N. L. Piper Railway Supply Co.

LIMITED,

314 Front St. West, Toronto.

Manufacturers of
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Street
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Railway
Lamps,
Etc.



PIPER'S PATENT DISTANT SEMAPHORE.

Dealers in
Chimneys,
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Wick,
Fusees,
Torpedoes,
Etc.

Canadian Northern Railway

THE NEW HIGHWAY BETWEEN EASTERN CANADA
VIA THE GREAT LAKES AND

THE GREAT NORTHWEST

Reaches over its own rails, Winnipeg, Brandon, Portage la Prairie, Neepawa, Dauphin, in fact, all of the best towns in the Province of Manitoba.

EXCHANGES TRAFFIC AT PORT ARTHUR WITH ALL BOAT LINES.

PORT ARTHUR TERMINAL FACILITIES.

The Company's Grain Elevators are second to none on the Great Lakes, and its docks afford ample facilities for the unloading and warehousing of package freight from the largest vessels.

FAST FREIGHT SERVICE.

Daily fast freight trains between Port Arthur and Winnipeg.

PASSENGER SERVICE.

On or about the 15th of June the Company will establish a through Passenger Service between Port Arthur and Winnipeg. The equipment will be brand new, and the service will be such as to commend itself to the travelling public.

For information respecting rates, etc., address

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G.E.A., 52 King St. East,
TORONTO.

R. H. BELL,
T.F. and P.A., 231 Board of Trade Bldg.,
MONTREAL.

GEO. H. SHAW,
Traffic Manager,
WINNIPEG.

it is expected that some 300 miles of construction will be carried out, and work will be continued far into the winter. Among the many new lines under construction in Manitoba are the lines from Winnipeg to McCreary via Neepawa; from Hallsboro', on the Neepawa branch, to Carberry, on the main line of the C.P.R.; from Greenway, on the Morris-Brandon branch, to Killarney, and from Winnipeg to Oak Point, on Lake Manitoba. The officials of the road say that they will move 60% of the crop on their lines before the close of navigation.

"The railway corporations have been accused of many sins in connection with the west, but the companies have not been niggardly in giving the best of their men to the task of solving the problems of the country. How far they have succeeded this year will be shown when that at present unknown quantity—the crop—is harvested."

Engineers' Club of Toronto.

About 25 members visited Niagara Falls, Ont., May 30, to see the work in progress on the three electrical power plants. Lake Ontario was crossed on the steamer Chicora, of the Niagara Navigation Co., and at Queenston a special car on the Niagara Falls Park and River Ry. was taken. The party was met at Queenston by C. B. Smith, Resident Engineer of the Canadian Niagara Power Co., at whose suggestion the invitation for the visit was given by the three power companies. After a short stop at Brock's Monument, the special car ran through to the upper end of the Dufferin islands, where the party disembarked and went over the site of the Ontario Power Co.'s intake, where the cofferdam has already been completed and a temporary wooden flume is in course of construction to supply power to drive rock crushers, concrete mixers, air compressors, etc., which will be used in the building of the intake wing dam. Next down stream the site of the Toronto and Niagara Power Co.'s intake, wheel pit and power house was visited. A cofferdam is in course of construction here, the irregular surface of the bed of the river and the great force of the current in the breakers rendering the work one of extreme difficulty. Again, further down stream, the Canadian Niagara Power Co.'s intake, wheel pit and power house sites were visited. Very satisfactory progress is being made with this work, and it is expected to be producing power within a year. Continuing down stream, the site of the Ontario Power Co.'s wheel pit and power house below the Falls was visited. The party was entertained at luncheon at the Lafayette House, where brief speeches were made by the representatives of the power companies, by President Rust and Secretary Chipman on behalf of the Club, and by Principal Galbraith, of the Toronto School of Practical Science. In the afternoon some of the party went down into the Canadian Niagara Power Co.'s wheel pit, others rambled about Queen Victoria Park, and some visited the New York State Reservation, all returning to Toronto in the evening by the Chicora.

There are in British Columbia 1,382.93 miles of railway, of which 952.71 miles are assessable for taxes by the Province, on a value of \$3,000 a mile, at 3.5 of 1%. The total valuation is \$2,858,130, and the tax is \$17,148.88. The return from which these figures are taken shows that the cost of the lines in the province amounted to \$66,547,969; that 345 miles of the C.P.R. is exempt from taxation for 10 years, and that 185.22 miles of line are assessable for taxes in municipalities only.

Canadian Northern Ry. Lands.

A syndicate of U.S. capitalists has been formed to purchase the C.N.R. Co.'s land grant, and a contract has been entered into for the sale of the land at a fixed price per acre, the total amount aggregating about \$12,000,000. A. B. Davidson, of Duluth, Minn., negotiated the purchase, and is arranging for the formation of the Manitoba and Saskatchewan Land Co. (Ltd.), with a capital of \$5,000,000, to finance the transaction. Those associated with him in the transaction are: A. D. McRae, G. C. Howe, of Duluth, Minn.; A. R. Davidson, of Little Falls, Minn.; F. C. Kenaston, G. F. Piper, W. D. Douglas, of Minneapolis, Minn.; A. J. Adamson, of Rosthern, Sask.; D. P. McDonald, of Fort Qu'Appelle, Sask. It is proposed to establish branches of this company in Canada and Great Britain, and to sell the land to actual settlers.

The total area of the land grant to which the C.N.R. became entitled through companies which it has amalgamated was about 3,500,000 acres situated in Manitoba, Assiniboia and Saskatchewan. The eastern boundary of the area in which these lands are situated is Lake Winnipeg, the northern boundary extending from 30 miles north of the Manitoba boundary to the Saskatchewan river; the western and southern boundaries run down by a series of steps from the Saskatchewan, to the Riding Mountains, about 10 miles north of Clanwilliam, Man.; and thence easterly to Lake Winnipeg, the line crossing Lake Manitoba, south of Oak Point. This area is traversed by the C.N.R. line, and the line under construction from Grand View, Man., to Edmonton, Alta., is south of it. The Attorney-General of Manitoba is reported as stating in reference to the sale: "We have a right to select 258,000 acres out of the land held by them, but only after a survey has been made by the Dominion, and then, according to agreement, in alternate odd numbered townships and ranges, and we simply cannot do anything until the Dominion survey is made."

Duties on Steel Rails.

Two items in the financial arrangements of the Dominion for the current year affect the steel rail trade in Canada. The first is the imposition of a duty of \$7 a ton on iron and steel "railway bars, or rails in any form, for railways imported into Canada," as soon as it is proved to the satisfaction of the Government that steel rails can be produced in Canada to meet the ordinary requirements of the market. In this connection is announced that the rail mills of the Algoma Steel Co. at Sault Ste. Marie, Ont., will be operated from the end of June onwards, and that the capacity is 150,000 tons a year. In 1902 the imports of steel rails into Canada from all parts totalled 132,000 tons. It is therefore assumed that the requirements of the resolution will be complied with and the duty enforced by proclamation.

The second item is the imposition of a surtax of one-third of the duty on articles manufactured in any country which discriminates in its tariff against Canadian goods. The supply of steel rails for the railways in Canada is drawn from Great Britain, the United States, Belgium and Germany, and as the latter country has a tariff discriminating against Canada, steel rails purchased there would come under the terms of the resolution. The date for the coming into force of the surtax was fixed for June 30, for goods purchased, or contracted for before April 16, but on representations being made to the Government the date has been altered to Sept. 30. It is calculated that contracts were placed by Canadian railways with manufacturers of steel rails in Germany for over 100,000 tons of rails for delivery this season.

TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—Arthur Piers, heretofore General Superintendent of Steamship Lines, has been appointed Manager of Steamship Lines, with charge of all the steamships owned and operated by the company. Office at Montreal.

D. W. Campbell, heretofore Manager for Elder Dempster & Co. at Montreal, has been appointed General Superintendent of the company's Atlantic Service. Office at Montreal.

Capt. J. W. Troup, heretofore Manager of the Canadian Pacific Navigation Co., has been appointed General Superintendent of the company's British Columbia Coast Service. Office at Victoria, B.C.

Lincoln Smith, heretofore in charge of the Upper Lake S.S. office at Owen Sound, has been appointed Superintendent of the company's Upper Lake Service. Office at Owen Sound.

Capt. J. C. Gore, heretofore Assistant Superintendent of the water routes at Nelson, B.C., has been appointed Superintendent of the company's British Columbia Lake and River Service. Office at Nelson, B.C.

The above named officers will all report to the Manager of Steamship Lines.

G. H. Webster, heretofore General Tie Agent, has been appointed Right-of-Way Agent. Office at Montreal. He will report to the Chief Engineer.

Thomas Walklate has been appointed General Tie Agent, vice G. H. Webster transferred. Office, Montreal.

Superintendents' accounts have been appointed as follows, including those mentioned in our last issue: F. A. Cousins, Brownville Jct., Me.; R. G. Allen, Woodstock, N.B.; I. A. Moody, Farnham, Que.; A. E. Crilly, Montreal; D. Mitchell, Ottawa; E. Patterson, Toronto; A. N. Hackett, Montreal; E. M. Favreau, North Bay, Ont.; J. McEniry, Chapleau, Ont.; W. T. Hayes, Schreiber, Ont.; W. A. James, Fort William, Ont.; J. Eggo, Winnipeg; C. B. Platt, Souris, Man.; S. J. Farmer, Brandon, Man.; H. W. Harding, Regina, Assa.; P. D. Shand, Moose Jaw, Assa.; W. M. Lafferty, Calgary, Alta.; W. W. Foster, Revelstoke, B.C.; R. N. Heddie, Vancouver, B.C.; R. A. Weir, Nelson, B.C. J. T. Matthews, heretofore agent of the North American Life Assurance Co., has been appointed soliciting passenger agent. Office, Charlottetown, P.E.I.

Wm. Downie, heretofore Superintendent at Nelson, B.C., has been appointed General Superintendent of the Atlantic Division, vice J. Osborne, transferred. Office at St. John, N.B.

C. W. Burpee, heretofore Roadmaster at St. John, N.B., has been appointed Superintendent of district 1, Atlantic Division, with office at Brownville Jct., Me., succeeding W. K. Thompson, transferred to Moose Jaw, Assa.

Jas. Manson, heretofore Superintendent old districts 8 and 9 at Toronto, has been appointed Superintendent district 2 Ontario Division, north and west of Toronto Jct., vice A. Price, transferred to Fort William, Ont. Office, Toronto.

Geo. Spencer, heretofore Chief Train Dispatcher of the Ontario Division at Toronto, has been appointed Superintendent district Ontario division, between Smith's Falls and Hamilton, inclusive of Toronto terminals, succeeding J. Manson transferred. Office, Toronto.

A. L. Smith, heretofore train dispatcher old districts 10 and 11 at Toronto, has been appointed Chief Train Dispatcher for the Ontario division, succeeding G. Spencer, promoted. Office, Toronto.

L. Mulkern, heretofore corresponding and enquiry clerk in the general freight office, Toronto, has been appointed city canvassing agent, succeeding H. C. McMullen. L. Doherty succeeds L. Mulkern.

Alfred Price, heretofore Superintendent old districts 10 and 11 at Toronto, has been appointed Superintendent of lines between Port Arthur, Ont., and Winnipeg Jct., Man., vice F. P. Brady, promoted. Office, Fort William, Ont.

F. P. Brady, heretofore Superintendent at Fort William, Ont., has been appointed Assistant General Superintendent of the Central Division. Office at Winnipeg.

H. L. Brown has been appointed Travelling Passenger Agent Central division, vice R. Farrell resigned. Headquarters, Winnipeg.

Jas. Brownlee, heretofore acting Superintendent district 22 at Brandon, Man., has been appointed Superintendent.

W. K. Thompson, heretofore Superintendent at Brownville Jct., Me., has been appointed Superintendent of district 24, with office at Moose Jaw, Assa., succeeding D. R. Bell.

J. R. Dalton has been appointed Trainmaster district 24, vice W. Hewitt, whose jurisdiction is now confined to district 25. Mr. Dalton's office is at Moose Jaw, Assa.

E. L. Chudleigh has been appointed Chief Train Dispatcher district 24. Office, Moose Jaw, Ass.

H. C. McMullen, heretofore city canvassing agent in Toronto, has been appointed Live Stock Agent Central and Western divisions. Office, Calgary.

D. G. Ross, formerly Superintendent at Fort William, Ont., has been appointed Superintendent district 30, succeeding W. Downie, promoted. Office, Nelson, B.C.

P. M. Beasley, heretofore in the company's office at Seattle, Wash., has been appointed city freight agent in Vancouver, B.C., succeeding A. J. Cambie, promoted.

A. J. Cambie, heretofore city freight agent at Vancouver, B.C., has been appointed Travelling Freight Agent, with headquarters at Seattle, Wash., vice S. Sherman, resigned.

Consolidated Lake Superior Co. and Subsidiary Companies, including Algoma Central and Hudson's Bay Ry. Co. and Manitoulin North Shore Ry. Co.—A. H. Chitty has been elected Treasurer, vice J. P. Hood, resigned.

Dominion Iron and Steel Co., lessees of Dominion Coal Co., Sydney and Louisburg Ry. and Black Diamond Steamship line.—J. R. McIsaac has been appointed Traffic Manager, vice W. Coyne, appointed Assistant to the President of the Consolidated Lake Superior Co. Office, Sydney, N.S.

V. C. Armstrong, formerly Traffic Manager of the D.I. and S. Co., has been appointed Night Superintendent of the Company's Steel Works.

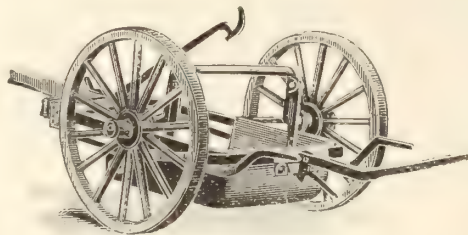
The general officers of the D.I. and S. Co. are:—President, Jas. Ross, Montreal; Vice-Presidents, Hon. G. A. Cox, Toronto; Hon. L. J. Forget, Montreal; 3rd Vice-President, G. H. Duggan, Sydney; Treasurer, J. McKay, Montreal; General Auditor, F. Schoenthal, Montreal; Local Auditor, J. R. Blackett, Sydney.

The officials of the Sydney and Louisburg Ry. are:—Traffic Manager, J. R. McIsaac, Sydney; Superintendent Motive Power, C. E. Slayton, Glace Bay; Engineer, C. M. Odell, Sydney; Purchasing Agent, J. W. Revere, Glace Bay; storekeeper, G. D. Cunningham, Glace Bay; Master Carpenter, R. D. Thompson, Glace Bay; Trackmaster, W. D. Graham, Glace Bay.

Grand Trunk Ry.—Geo. B. Filgiano has been appointed Auditor of Passenger Accounts, vice John Payne, deceased.

L. Macdonald, heretofore chief clerk in the Freight Traffic Manager's office, Montreal, has been appointed acting Division Freight Agent at Hamilton, Ont., vice J. H. Hanna, given leave of absence on account of ill-health.

J. Wilson, heretofore chief clerk in the General Freight Agent's office, Montreal, has been appointed chief clerk in the Freight



K. & J. Wheel and Drag SCRAPERS

Wheelbarrows, Shovels.

All kinds of Contractors' Supplies. Large Stock carried.

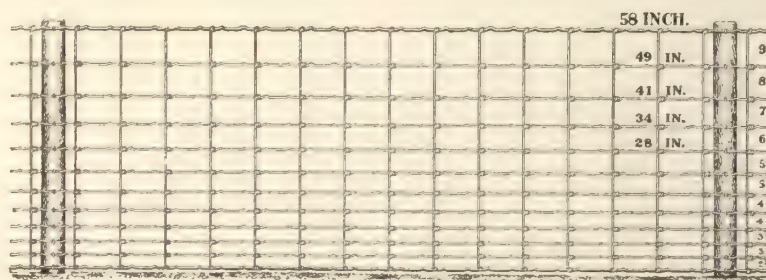
CAMMELL'S MARION RODGER
STEEL STEAM BALLAST
RAILS. SHOVELS. CARS.

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CANADIAN SALES AGENT:

JAMES COOPER, - Montreal.

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Special Steel ✱ Special Treatment ✱ Special Galvanizing ✱ Extra Heavy Wire ✱ Perfect Hinge Joints ✱ Tension Curves amply provide requisite elasticity to successfully combat varying temperature. "AMERICAN" FENCES have a world-wide reputation; quality the best. ✱ Write to us and we will save you money. : : :

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THE CANADIAN STEEL & WIRE COMPANY, Limited
HAMILTON, CANADA.

Traffic Manager's office, Montreal, vice L. Macdonald, promoted.

J. W. Campbell has been appointed chief clerk in the General Freight Agent's office, Montreal, vice G. Wilson, promoted.

G. A. Kyle, heretofore Division Engineer of the Northern Pacific Rd., is reported to have been appointed Division Engineer of the G. T. Pacific Ry., with office at Winnipeg.

The following agents have been installed: Pownal, Me., A. J. Ryan; Aston, Que., A. L. Gilbert; Oshawa Jct., Ont., L. N. Swinyard; North Parkdale (Pass.), Ont., R. McIntyre; Thorndale, Ont., R. Cossey; Burlington Jct., Ont., J. A. Sharpe; Komoka, Ont., E. J. W. Perry; Tavistock, Ont., G. Reid; Clifford, Ont., J. L. Taylor; Listowel, Ont., A. M. Smith; Goodells, Mich., G. H. Fowler; Lansing, Mich., T. C. Mann; Lapeer, Mich., P. N. Moore; Potterville, Mich., G. E. Payne; Griffith, Ind., E. J. Bennett; Ovid, Mich., M. K. Plummer; Copperville, N.H., W. J. Runyan; Chesterfield, Mich., W. W. Thompson.

Great Northern Ry. of Canada.—J. G. Scott having resigned, the position of General Manager has been abolished.

E. E. Ling having resigned, the position of Assistant General Manager has been abolished.

A. J. Gorrie, heretofore Superintendent of the Canadian Northern Ry. at Port Arthur, Ont., has been appointed General Superintendent of the G.N.R. Office, Quebec. The other heads of departments will report to him.

A. E. Doucet, Chief Engineer, has resigned. He is also Chief Engineer of the Quebec and Lake St. John Ry. and of the Trans-Canada Ry.

Guelph Electric Street Ry.—J. J. Hackney has been appointed manager.

Intercolonial Ry.—Unconfirmed press reports state that T. Dunning, Cashier, at Moncton, N.B., has resigned after a few months' occupancy of the office.

King Edward Hotel, Toronto.—C. E. Bunting, heretofore chief clerk to the Assistant General Passenger Agent, C.P.R., Vancouver, B.C., has been appointed joint ticket agent of the C.P.R. and G.T.R. at this hotel.

Lake Erie and Detroit River Ry.—C. C. Young, General Agent at London, Ont., has resigned.

Lindsay, Bobcaygeon and Pontypool Ry.—H. W. D. Armstrong, heretofore of the C.P.R. engineering department, has been appointed Chief Engineer of the L., B. and P. Ry. Office, Lindsay, Ont.

Michigan Central Rd.—N. McNabb, heretofore Roadmaster at Ridgeway, Ont., has been appointed Roadmaster of the Eastern and Toledo divisions in Michigan. Office, Detroit.

D. H. Ford, heretofore Assistant Roadmaster of the St. Clair division, has been appointed Roadmaster of the West Canada division, succeeding N. McNabb. Office, Ridgeway, Ont.

J. Kenny has been appointed Assistant Roadmaster St. Clair division, succeeding D. H. Ford. Office, St. Thomas, Ont.

National Despatch Great Eastern Line.—A joint circular issued by the Freight Traffic Managers of the G.T.R., the Central Vermont Ry., and the Boston and Maine Rd., states that D. L. Lawrence has been appointed Manager of this line, vice C. A. Hayes, appointed Assistant General Freight Agent, G.T.R., at Chicago, Ill.

Toronto, Hamilton and Buffalo Ry.—G. W. Holmes has been appointed Purchasing Agent, and G. W. Wilson, Car Accountant. Offices at Hamilton, Ont.

Miss E. Bell, daughter of G. T. Bell, General Passenger and Ticket Agent G.T.R., died in California recently.

SHIPPING MATTERS.

Notices to Mariners.

The Department of Marine has issued the following notices:

No. 32. May 4.—British Columbia.—71. Vancouver island, east coast, Sidney channel, Little group, Dock island, light established, hydrographic note. 72. Vancouver island, east coast, Stuart channel, Oyster harbor, Evening cove, uncharted rock. 73. Vancouver island, east coast, Stuart channel, Miami reef, light on wreck.

No. 33. May 7.—Quebec.—78. River St. Lawrence below Quebec, Island of Orleans, St. Laurent, wharf lengthened, light moved. 79. River St. Lawrence below Quebec, Island of Orleans, Ste. Petronille, color of lighthouse changed.

No. 34. May 14.—North Atlantic ocean.—84. Off the south coast of Newfoundland, current survey steamer to be avoided. Quebec.—85. River St. Lawrence, bridge under construction above Quebec, lights on piers.

No. 35. May 19.—Quebec.—86. Gulf of St. Lawrence, Faure point, change in color of lighthouse.

The following notices have been issued by the U.S. Hydrographic Department:

No. 19. May 9.—St. Lawrence river.—905. Granite Slate shoal buoy No. 10, out of position.

No. 20. May 16.—Lake St. Clair.—967. Thames river lights, lightkeeper's dwelling destroyed. St. Lawrence river.—970. Granite State shoal gas buoy No. 10, replaced in position.

No. 21. May 23.—Lake Erie.—1022. Buffalo to Detroit, obstruction reported by str. Cuba.

Maritime Provinces and Newfoundland.

A. F. Bremner, of the Boston Engineering Co., Boston, Mass., has been looking over sites at Sydney, N.S., with a view of establishing a shipyard for repairing work there.

The new St. John, N.B., tug Lord Kitchener is fitted with a large wrecking pump, and is intended for service as a fire-boat as well as for towing and wrecking purposes.

The steamer Queen, purchased in Montreal in 1902 from the Montreal and Cornwall Steamship Co. by the Princess Steamship Co., of St. John, N.B., has been placed on the Washdemoak route.

A deputation from the Maritime Provinces waited on the Dominion Government May 11, and asked for a bounty of \$3 a ton to assist in the establishment of the iron and steel ship-building industry in Canada.

L. Coste, an engineer of the Dominion Department of Public Works, has been inspecting the sites suggested for the Imperial dry dock at St. John, N.B., and as a result it is proposed to secure another site.

The Board of Trade and other organizations of St. John, N.B., have passed a resolution in favor of the establishment of a harbor trust, and have recommended that the Dominion Government be asked to create one for the port.

Application is being made at the current session of the Dominion Parliament for an act to incorporate the Prince Edward Island Ferry Co., of Charlottetown, to operate a steam ferry from Cape Traverse or Carleton Point, P.E.I., to Cape Jourmain or Cape Tormentine, N.B.

The Dominion Transportation and Towing Co., Ltd., has been incorporated under the Dominion Companies' Act, with offices at Halifax, N.S., and a capital of \$80,000, to carry on a general navigation business. The incorporators are G. E. Van Buskirk, H. G. Bauld, R. H. Humphrey, E. J. Longard and H. C. Borden, of Halifax.

The Dominion cruiser *Gulnare* will be employed during the summer in examining currents in North Atlantic ocean between Cape Race and the French islands, to ascertain the character and extent of the indraught which is reported to set into the larger bays there. For this purpose the steamer will be anchored in deep water on the steamship routes at different points along the Newfoundland coast. The work is in charge of Dr. W. Bell Dawson, of the Tidal Survey branch of the Department of Marine.

Province of Quebec Shipping.

The Canadian Towing and Transportation Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with offices at Montreal, and a capital of \$20,000, to carry on a general towing business. The incorporators are: A. E. Pontbriand, Sorel, Que.; P. Letendre, St. Michel d'Yamaska, Que.; A. Lomer, A. Wand, Montreal; and W. Byrne, Prescott, Ont.

Construction has been started on the enlargement of the entrance locks to the Lachine canal at Montreal. The locks are to be made of the standard canal size, 270 ft. long, 45 ft. wide, 32 ft. deep, and will have 17 ft. of water on the sill. Coulson, Quinlan and Robertson are the contractors, and H. R. Lordly is the engineer in charge of construction for the Government.

The commissioners appointed by the Minister of Public Works to inquire into the most suitable form of dry dock for Montreal recommend the construction of a permanent structure of concrete and stone at a cost, with suitable approaches, of \$925,000. The site suggested for this dock is below the current of St. Maurice river. It was stated in the House of Commons that there was \$250,000 now available towards the construction of such a dock.

G.T.R. Toronto Freight Sheds.—A plan has been prepared showing the proposed layout of the new freight yards for the G.T.R., between John and Simcoe streets, and extending from Front st. to Wellington st., Toronto. The new yard will be reached by a switch starting from the present lines just west of Spadina ave., crossing Front st., at Windsor st., and John st., north of Front st. The new yard has a frontage of 960 ft. by a depth of 410 ft. The new freight offices will be 175 ft. 5 in. by 30 ft., and will front on Simcoe st.; the outward freight shed will be 930 ft. by 40 ft., extending from John st. to the offices, and the inward freight shed will be 850 ft. by 40 ft., the space between the two, about 90 ft., being utilized for a transfer platform and tracks. Between the inward freight house and Wellington st., there will be five sets of tracks with roadways between for loading and unloading direct into the cars. Work on the new yard is expected to be commenced by July 1.

J. H. Hanna, Division Freight Agent at Hamilton, Ont., who was given leave of absence last winter on account of ill-health, and went to Florida, returned to Hamilton in April, and resumed duty for about a month, until the middle of May, when he felt it necessary to go away again. He has been given further leave for six months, and is now at the Sanitarium at Gravenhurst, Ont. Mrs. Hanna and family have removed from Hamilton to Toronto.

C. Shields, President Consolidated Lake Superior Co., was presented with an address and a silver center piece by the Provincial Workmen's Association, the officials of the Dominion Coal Co., and the citizens of Glace Bay, on the occasion of his leaving Nova Scotia. He was also given a public reception by the citizens of Sydney, N.S.

Ontario and the Great Lakes.

The Toronto Ferry Co. has added the new str. Kathleen, built at Oakville, Ont., to its fleet.

The Blind River Towing Co. (Ltd.) has removed its head office from Sarnia to Blind River, Ont.

The Hamilton Steamboat Co.'s str. Modjeska was refitted at a cost of \$10,000 prior to going on the Hamilton-Toronto run.

The St. Lawrence and Chicago Steam Navigation Co. has been authorized to increase its capital from \$500,000 to \$1,000,000.

The str. Garden City has been thoroughly overhauled and refitted at Port Dalhousie, Ont., during the winter; she will be on the Toronto-St. Catharines run, as usual.

The str. White Star, on the Toronto-Oakville run, was rather badly damaged by a break in her machinery, June 1, and is being repaired by the Polson Iron Works, Toronto.

The steamers Badger State and Empire State, which ran between Toronto, Montreal and Toledo in 1901, have been placed on a route between Cleveland, Ohio, and Detroit, Mich.

The J. H. Plummer, one of the three new steamers for the Canadian Lake and Ocean Navigation Co., arrived at Montreal June 1, and after unloading will proceed to the upper lakes.

A wrecking tug is engaged in recovering the cargo of bar iron from the hold of the C.P.R. str. Algoma, wrecked on Isle Royale, Lake Superior, 19 years ago, with a loss of 52 lives.

The Northwest Transportation Co., owned by the Northern Navigation Co. of Ontario, is obtaining prices for an additional steamer similar to the Huronic, built at Collingwood, in 1901.

The Rainy River Navigation Co. is negotiating with the Bertram Engine Works, Toronto, for the building of a new steamer similar to the Keenora for the Lake of the Woods freight and passenger trade.

The St. Lawrence and Chicago Steam Navigation Co.'s steamer under construction at Collingwood will be launched June 20, and will be named W. D. Matthews, after one of the directors of the company.

The steam tug recently constructed for the Manitou Fish Co. at Owen Sound, Ont., will be placed on Manitou lake, on Manitoulin island. The tug will be conveyed overland from Manitowaning to the lake about 5 miles.

R. O. and A. B. Mackay, of Hamilton, Ont., have closed a contract to deliver 150,000 tons of iron ore from Michipicoten to Point Edward, Ont.. From Point Edward the ore will be carried to Hamilton by G.T.R.

The str. Norseman, built in 1864, and hitherto on the U.S. register, has been given Canadian papers, with Goderich as a hailing port. Her dimensions are: length, 172 ft.; breadth, 32 ft.; tonnage, gross, 660 tons; net, 501 tons.

The Montreal Transportation Co. has purchased the str. Bothnia from the Pennsylvania Coal Co. The Bothnia was built at Garden City, Ont., 1895, her dimensions being: length, 178.1 ft.; breadth, 37.8 ft.; depth 12.3 ft.; tonnage, gross, 833 tons; net, 478 tons.

D. O'Connor has placed a steamer on Lake Temagami, Ont., for the general freight and passenger trade. The steamer also carries mails to the new settlements which are rapidly growing up in the district. The Temagami forest reserve is also an attractive tourist resort.

The Palace Houseboat Co. has been incorporated under the Ontario Companies' Act, with offices at Midland, Ont., to construct houseboats on Georgian bay. The Company

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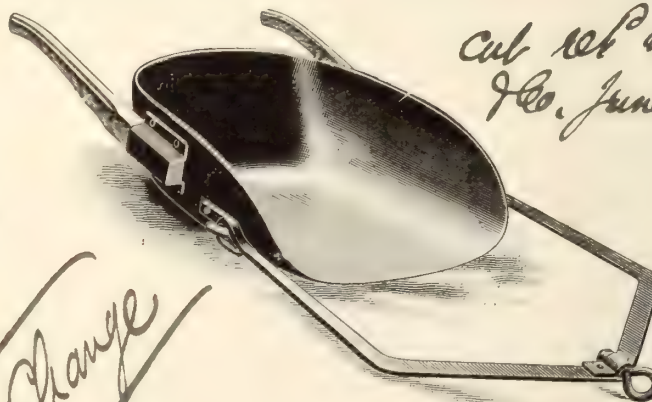
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has a capital of \$40,000, and comprises a number of steamship owners and railway men.

The Trent Valley Navigation Co. has purchased the composite str. *Empress* from Capt. Reynolds, of Lakefield, Ont., plying on Stony Lake. This purchase gives the T.V.N. Co. control of the whole of the steamers on the route between Cobocok and Lindsay, to Lakefield.

A broken oar with the name Bannockburn on the blade, has been picked up on the beach west of Gros Cape, Lake Superior, and wreckage of the steamer is being washed ashore near Michipicoten. The Bannockburn was lost with all hands towards the end of the season of navigation 1902.

The Warroad Transportation Co. has been organized in Minnesota, to operate freight and passenger steamers on the Lake of the Woods, Rainy River, and tributary waters. Capt. W. Bridges, of Rat Portage, Ont., is interested in the Company, which is having a \$12,000 steamer constructed, to be placed on the river early in Sept.

T. Marks & Co., of Port Arthur, Ont., have placed an order at Newcastle-on-Tyne, Eng., for a steel steamer to be delivered in Sept., of the following dimensions: length, 254 ft.; breadth, 42 ft.; depth, 25 ft.; gross tonnage, 2,000 on a draft of 14 ft. She will be fitted with triple expansion engines, to which steam will be supplied by two Scotch boilers, capable of making 14 knots an hour.

The str. *Wacandah*, built in Glasgow, Scotland, for R. T. and A. B. Mackay, of Hamilton, Ont., grounded off Farran's Point, in the St. Lawrence, on her trip inwards, and is in dry-dock at Buffalo, having nine new plates put in her hull. The owners have on order in Glasgow, for fall delivery, a steamer of similar size, and will order four more of the same size and type for delivery in 1904.

The Welland Canal Tug Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$95,000, and offices at Port Colborne, Ont., to carry on a general towing and transportation business on the canals and great lakes of Canada. The incorporators are: De W. Carter, C. S. Carter, F. W. Carter, Mrs. E. E. Carter and Mrs. M. Macdonald, of Port Colborne.

A parliamentary return has been issued at Ottawa showing that the cost of the section of the Trent Valley Canal from Rice Lake to Lake Ontario, would be \$2,225,000 via Trenton, and \$2,100,000 via Port Hope. R. B. Rogers, the engineer, recommends the Trenton route, and it is reported that the Dominion Government has acquired most of the land required for the construction of the canal along this route.

The A. J. Tymon, which was sold about two months ago at a marshal's sale, has been named the *Ojibway*, and will be operated by the Hiawatha Steamship Co. from Sault Ste. Marie, Ont., to Georgian bay ports. The steamer was originally the W. M. Aldersen, and traded between Owen Sound and Wiarton; on being sold to the lower lakes she was burned to the water's-edge, and on being rebuilt in 1892 at Toronto, was named A. J. Tymon.

The screw str. *Simla*, built at Garden Island, Ont., was towed to Toronto, where she received her engines at the Polson Iron Works. Her dimensions are: length, 240 ft.; breadth, 37 ft.; depth, 15 ft.; and her cargo capacity is 70,000 bush. of grain. She has been fitted with triple expansion engines, cylinders 17, 28 and 46 in. diameter by 36 in. stroke, to which steam is supplied by two Scotch boilers 11 ft. by 11 ft., at a pressure of 175 lbs. to the square inch.

The Western Navigation Co. (Ltd.), incorporated under the Ontario Companies Act,

has its head office at Collingwood, Ont., and has acquired a steamer, which has arrived on the Great Lakes from England. The *Wexford* is a steel screw steamer, built by W. Doxford & Son, Sunderland, Eng., in 1883, of the following dimensions: length, 250 ft.; beam, 40 ft.; depth, 16 ft. 2 in.; tonnage, gross, 2,077; register, 1,354. Capt. W. J. Bassett, formerly of the Northern Navigation Co.'s service, is largely interested in the company, and will be in command of the *Wexford*.

Manitoba and the Northwest Territories.

Reid & Co., of Prince Albert, Sask., have completed the construction of a 75-ft. steamer for the navigation of the Saskatchewan river. The engines were built at Winnipeg.

Application is being made at the current session of the Dominion Parliament to authorize the city corporation of Winnipeg to construct a canal and locks to connect the Assiniboine river and Lake Manitoba.

A movement is being made in Prince Albert, Sask., to provide steamers on the north branch of the Saskatchewan river to the lands taken up by the Barr colony. J. H. Wilson, of the Imperial Bank, is taking an active interest in the matter.

The Manitoba Exploration Co. has been incorporated under the Manitoba Companies' Act, with a capital of \$75,000 to engage in a variety of operations, including the ownership of vessels and the carrying on of a general navigation business. The incorporators are E. F. Hutchings, J. Robertson, G. A. Glines, R. T. Riley, J. Galt, J. G. Cleghorn, D. McKinty, J. Maw, W. Brydon, J. H. Leech, E. L. Drewry, J. W. Harris, C. H. McNaughton, J. S. Gray, T. Nichol, W. G. Scott, A. D. Carscallen, C. W. Clark, A. McLaren, J. Burridge, R. R. Sutherland, of Winnipeg, and H. Armstrong, of Portage la Prairie, Man.

Capt. L. Bellefeuille, of the str. *Alexandra*, has completed making soundings on the Assiniboine river between Winnipeg and Portage la Prairie, Man. He reports that the river can easily be made navigable for a certain class of freight steamers. The only very shallow spot was found at St. James bridge, and if this were dredged, and the channel straightened at a few places, there would be a very good navigable channel. He suggests that the C.P.R. should put in a swing span instead of a fixed span on the bridge under construction at Headingly. Capt. Bellefeuille has been engaged by the Dominion Government to make soundings of the river as far as Brandon, with a view of ascertaining if it is possible to secure a navigable channel.

E. G. Somers, heretofore General Western Freight Agent of the New York Central Rd., at Chicago, Ill., has been appointed Freight Traffic Manager of the New York, New Haven and Connecticut Rd.

The arrangements for the running of through passenger trains from Chicago, Ill., to Buffalo, N.Y., by the Pere Marquette Rd., are reported to be almost completed.

W. H. Evanson, Travelling Auditor C.P.R., was given a signet ring by officials of the Company at Toronto, on the occasion of his recent removal to Winnipeg.

H. F. Sharp, hitherto ticket agent at the G.T.R. town station, St. Mary's, Ont., has resigned and has removed to Boston, Mass., also in railway service.

Miss M. Gaskin, daughter of Capt. J. Gaskin, of Kingston, Ont., was married there June 3, to W. W. Sands, a member of the city council.

B.C. and Pacific Coast Shipping.

The steam launch *Beryl*, one of the two being built for the British Admiralty, has been launched at Vancouver, B.C. This is the first work of the kind given out on the Pacific coast by the Admiralty.

The Western Steamboat Co., at a meeting held at New Westminster, B.C., subscribed the necessary additional capital to have the str. *Ramona* put in thorough repair. On the completion of the work the *Ramona* will be placed in service on the Fraser river run.

The Union Steamship Co. of New Zealand, owning the Canadian-Australian line of steamers sailing from Vancouver, B.C., has secured the transportation of the British mails across the Pacific ocean for a further period of three years. Newer and faster steamers will probably be provided.

The cable repair str. *Iris*, owned by the Pacific Cable Board, is now in service and will reach Bamfield Creek, where the Canadian end of the cable comes ashore, towards the end of the summer. While there she will lay a short length of cable to replace a piece of land line, which is constantly being interrupted.

The Canadian Pacific Navigation Co. has now been dropped as the title for the coast-wise steamers operated by the C.P.R., the new title being "The C.P.R. Co.'s Steamship Lines, British Columbia Coast Service." The steamers operated on the inland lakes and rivers will be known in future as "The C.P.R. Co.'s Steamship Lines, British Columbia Lake and River Service."

General Telephone Matters.

The Nova Scotia Telephone Co. is putting all its wires in Halifax, N.S., underground.

The Telephone Co. of Prince Edward Island has been asked to extend its system to Cherry Valley.

W. J. Clark has been appointed Superintendent of the Bell Telephone Co., Toronto, succeeding A. M. Stark, resigned.

The Bell Telephone Co. has installed an auxiliary switchboard at its Owen Sound, Ont., exchange, owing to the increased business.

A telephone service is being installed at Wetaskiwin, Alta., by the town, the charge to be \$15 for business places and \$10 for residences.

The C.P.R. telegraph department proposes establishing a telephone line between St. Stephen and Watt Jct., N.B., with offices at Moore's Mills and Honeydale.

The Moosomin, Man., Telephone Co. proposes to extend its long-distance lines to Fleming, 9 miles east; to Valley, 12 miles south; and to Andrea, 15 miles southwest.

The Miramichi Telephone Co. is about to reconstruct the telephone system in Chatham, N.B. A metallic circuit will be provided, and the exchange will be given a modern equipment.

The Bell Telephone Co. proposes to string lines which will connect Lethbridge and Cardston, and Calgary and Edmonton, Alta., this year, and to connect Lethbridge and Calgary in 1904.

The Citizens Telephone and Electric Co., of Rat Portage, Ont., has removed its pole line from the C.P.R. right-of-way to the Government road between Norman and Keewatin.

R. A. Zimmerman, F. Warnke and F. J. Leonard, Pennsylvania capitalists, are applying for incorporation at the current session of the Dominion Parliament as the Canadian Telephone and Telegraph Co.

The Bell Telephone Co. is applying to the Northwest Territorial Legislature for an ordinance to enable it to properly exercise in the Territories the powers and privileges granted by its charter of incorporation.

The Economy and Five Islands Telephone Co., of Economy, N.S., is replacing its old poles with new cedar ones, and has installed a number of additional instruments on its lines. Dr. Wallace is President, and S. G. Dickey, Secretary.

The Vernon and Nelson Telephone Co. is applying at the current session of the B.C. Legislature for an act authorizing it to divide its capital into ordinary and preferred shares; and to purchase, lease or otherwise acquire the rights of any other similar company.

The Memramcook and Dorchester Telephone Co.'s shareholders at its annual meeting at Memramcook, N.B., May 29, elected J. P. Sherry, President, and Dr. E. T. Gaudet, Secretary. It was reported that the business for the year had been satisfactory.

The Canton Patton Telephone Co. has been incorporated under the Quebec Companies' Act to construct telephone lines in the counties of Bellechasse and L'Islet. J. R. C. de Lorimer, J. A. Couture, L. Picard, T. Godreau and A. Boulet are the incorporators, and the offices are at St. Paul de Buton.

The Nova Scotia Legislature at its last session passed an act providing that all telephone companies carrying on business in the Province shall file a list of tolls and charges with the Provincial Secretary. All tolls are to be subject to the approval of the Governor-in-Council before becoming operative.

The Merchants' Telephone Co., of Montreal, has been acquired by a New York syndicate which has elected Dr. J. N. Culbertson, of New York, President and General Manager, and J. Maisson, Secretary. The Company has about 1,000 subscribers in Montreal. The new owners propose to branch out, and have already proposed to establish a system in Ottawa.

The Municipal Electric Light, Gas and Telephone act was amended at the last session of the Manitoba Legislature by the addition of a clause to sec. 20, providing for making the principle of debentures, issued for money borrowed by municipalities for either of these services, repayable in accordance with the provisions of secs. 445 and 446 of the Municipal Act, chap. 116 of the Revised Statutes of 1902.

The Bell Telephone Co. proposes to extend its long-distance system in Manitoba during this year so as to include Carman, Roland, Rosebank, Miami, Treherne, Holland, Cypress River, Glenboro, Wawanessa, Methven, Rounthwaite, Martinville, Manitou, La Riviere, Pilot Mound, Crystal City, Cartwright, Homefield, Souris, and Killarney, in southern Manitoba; and Gladstone, Arden, Alexander and Kemnay. These extensions call for the construction of about 300 miles of line. Local exchanges are being established at Morris, Gretna, Souris and Emerson, Man.

T. Glynn, formerly ticket agent at the Richlieu and Ontario Navigation Co.'s Toronto office, is now its ticket agent at Alexandria Bay, N.Y.

The Canadian Freight Association's summer meeting, which has been fixed for Murray Bay, Que., will probably be held on July 8 and 9.

The Simplex Railway Appliance Co. proposes erecting a new plant in Canada, its present one at St. Henri, Montreal, being too small.

E. G. Trites, son of E. T. Trites, Paymaster I.C.R., died at Moncton recently.

D. J. McGregor, of New Glasgow, N.S., a director of the Nova Scotia Steel Co., has been called to the Senate.

H. V. Poore, formerly General Organizer of the United Brotherhood of Railroad Employes, died at Winnipeg recently.

W. H. C. Mussen, of W. H. C. Mussen & Co., Montreal, was married there recently to Miss M. E. Sharpe, of New York.

A. White, father of W. White, chief clerk to the G.T.R. Superintendent at Toronto, an old railway employee, died in Toronto recently.

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Canadian Northern Ry. Construction.

Port Arthur Elevators.—No decision has been reached as to the construction of additional elevator accommodation at Port Arthur, Ont., but it is contemplated erecting a large addition to the present accommodation. The construction will be similar to the tile tank storage elevator recently completed. (May, pg. 174.)

Port Arthur-Rainy River.—Three steam-shovels are employed in ballasting this section of the line preparatory to the inauguration of the daily express service on June 15.

Winnipeg Terminals.—The negotiations with the city council relative to the building of a station and hotel have not been concluded, and until an arrangement has been made in regard to the matters under discussion the plans cannot be definitely settled. Plans have been submitted to the council showing what the company desires to do, but alterations may have to be made to suit conditions imposed by the city. D. D. Mann recently stated in Winnipeg that the press report that the C.N.R. would erect a joint station with the C.P.R. was without foundation. (May, pg. 174.)

Portage la Prairie, Southwesterly.—A. C. Mackenzie and J. Cowan have contracts for grading on this line from Portage la Prairie southwesterly through the Rosendale district. It is intended to carry this line through to Brandon. (May, pg. 174.)

Carberry to Neepawa.—Surveys have been completed for the 20-mile branch connecting the Neepawa branch with Carberry, and the right of way is being acquired. The branch will probably be constructed this year, and a press report states that J. Cowan has a contract for grading. (May, pg. 174.)

Grand View—Edmonton Extension.—The Toronto Globe Ottawa correspondent announced May 27 that the Government would ask Parliament to guarantee the bonds of the company for \$13,000 a mile, in respect of the construction of 620 miles of line from the Manitoba boundary to Edmonton, the Government taking a first mortgage on the line so constructed as security. On the extension from Grand View, G. H. Strevel had a contract for grading in 1902 and had completed 38 miles towards the Manitoba boundary when work ceased for the year. Over 300 miles from Grand View are already under contract this season, and other contracts will be let as speedily as possible. G. H. Strevel is pushing ahead with the grading from the point he left off in 1902; McCutcheon & Fisher are working westerly from the Quill Plains, and another contractor, press reports state, will start from Saskatoon and work easterly. The Barr colonists have a contract to grade 100 miles through the lands they have taken up, northwest of Battleford, and J. D. McCrimmon, who constructed the line from Strathcona into Edmonton, is grading from the temporary station at Edmonton to the Hudson's Bay reserve, recently acquired for station and yard purposes, and will continue grading to Fort Saskatchewan. The extent of grading which will be completed on the line during the year will depend on the number of men that can be obtained. As, however, the district through which the line passes is attracting large numbers of settlers, it is expected that there will not be any great scarcity of men for the work. A big endeavor will be made to get the line through to Edmonton, but it is hardly likely to be successful. Contracts have been let for the steel superstructure for the bridges across the north and south branches of the Saskatchewan river, at the Elbow and Osler, respectively.

Prince Albert Extension.—Neil Keith has a contract for grading to Melfort, on Carrot river, about 100 miles from Erwood, and it is

expected that track will be laid on the whole of this during the current year. (May, pg. 175.)

Edmonton, Westerly.—B. Burns recently returned from a reconnaissance survey via Athabaska Landing to the Peace river and Grand Prairie country.

C.P.R. Betterments, Construction, Etc.

Overhead Bridge at Place Viger, Montreal.—The Supreme Court has decided that the cost of the overhead bridge from Notre Dame St. to Place Viger station, Montreal, should be apportioned between the city and the C.P.R., the C.P.R. to pay \$24,679, and the city \$11,092.

Northern Colonization Ry.—We were recently advised that the grading on the extension from Labelle to Nominique, Que., was well advanced, but that no track had been laid. (April, pg. 131.)

Montreal Shops.—Excellent progress is being made with the construction of the various buildings at the site of the new shops at Hochelaga. G. R. Mitchell, resident engineer in charge of the work, recently stated that some of the buildings would be ready for occupation by autumn. A contract has been let for the boiler equipment for the shops, the installation to be completed by Sept. 30. (April, pg. 131.)

Brockville Improvements.—We were recently advised that improvements at the yards, etc., at Brockville, Ont., had been considered, but were in abeyance for the time being. (April, pg. 131.)

London Yards.—The improvements contemplated at the London, Ont., yards include siding accommodation for 125 additional cars. (May, pg. 179.)

Winnipeg Station and Subway.—There is a probability that negotiations will be resumed between the company and the city council relative to the construction of a subway and a new station building on Main st. The city is negotiating with some property owners who prevented the last arrangement being carried out, and a settlement is likely. W. Whyte, Assistant to the President, states that the C.P.R. will not have anything to say on the matter until this question has been settled, as the company has reached the limit of concession. (May, pg. 179.)

Selkirk-Reaburn Cut-off.—W. Whyte, Assistant to the President, recently stated that the possible cut-off between Selkirk and Reaburn would not be considered by the company until the Winnipeg matters were satisfactorily settled. The same can also be said of a suggested cut-off between Winnipeg and Molson. (Feb., 1902, pg. 65.)

Winnipeg Beach Branch.—A regular train service from Winnipeg on this branch, 50.1 miles, will be inaugurated June 7. There will be a daily service, with excursion trains as required. The present service consists of a bi-weekly mixed train each way. (Nov., 1902, pg. 379.)

Kelroe, Man.—The old shack which did duty for a station has been burned down, and the inhabitants are petitioning the company to erect a proper station building.

Minnedosa, Man.—A fire May 9 destroyed the station building and a good deal of other property.

Manitoba and Northwestern Ry.—J. D. McArthur, who did the grading on the extension from Yorkton, Assa., in 1902, has a contract for grading a further extension of 30 miles this year. (May, pg. 179.)

Pipestone Branch.—An injunction has been granted restraining Foley Bros. and Larsen, the contractors for the extension from Arcola, Assa., towards Regina, from entering on cer-

tain lands, and other injunctions are likely to be applied for. The reason given for the legal proceedings is that the company did not make arrangements for the payment of compensation for the lands expropriated. (May, pg. 179.)

Pheasant Hills Branch.—We were recently advised that no new contract had been let for grading on this branch, in addition to the contract for 105 miles let in 1902 to Foley Bros. and Larsen. (May, pg. 179.)

Moose Jaw, Assa.—The improvements to be effected during the year include the enlargement of the roundhouse and the station, as well as the extension of the yard and the laying of additional tracks. The cost of the improvements, press reports state, will be \$100,000.

Crow's Nest Pass Line.—Traffic on the line at Frank, Alta., was suspended owing to the landslide at Turtle mountain, which covered about two miles of the track and the line was abandoned. Under the direction of E. H. McHenry, Chief Engineer, a new line east of the old one is being constructed close to Frank, far enough away to be out of the region of further slides. On May 23 the first train passed over a temporary line which has been laid.

The Great Northwest Central Ry. Co. was incorporated in 1886, and its charter was confirmed in 1888 by the Dominion Parliament. It had power to construct a line from Brandon via Rapid City, Man., to Battleford, Sask., about 450 miles. About 50 miles had been constructed from Chater, 5 miles east of Brandon, when the line passed under the control of the C.P.R., by which company it was extended to the Assiniboine river at Miniota, 71 miles. At the present session of the Dominion Parliament the C.P.R. is asking for an extension of time to 1906 to complete the line. The application was opposed before the Commons Railway Committee by the Canadian Northern Ry., and at the suggestion of Sir Thos. Shaughnessy the bill was approved, subject to the insertion of a clause limiting the extension to be made under the present act to 200 miles. During the discussion the Minister of Railways stated that the Government had decided that the lines to be constructed in the Northwest should be so laid out that the country through which they were to pass should be best served; it had also been concluded by the Government that rival railways should not parallel within 40 miles.

Calgary and Edmonton Ry.—The application of the C.P.R., under the charter of the C. and E. Ry., to extend the line from Strathcona into Edmonton, Alta., and to construct a number of branch lines, was opposed by the Canadian Northern Ry., which, under the charter of the Edmonton, Yukon and Pacific Ry., has a line in operation between Strathcona and Edmonton, and has its main line under construction between Grand View, Man., and Edmonton. The Edmonton town council wants the C.P.R. connection as well as the C.N.R., and petitioned in favor of it. The C.P.R. offered to build a high level bridge across the Saskatchewan river at a cost of \$237,000, in order to gain an independent entrance, and approval was given to the bill as thus amended.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—In connection with the proposed extension from Glenwood northerly, Sir Thos. Shaughnessy recently stated that the company would make a considerable addition to the existing line to carry it up to the Canadian border. The point at which the extension would touch the border had not been decided upon, but the line in all probability would ultimately be carried to Winnipeg. A contract for the line from Glenwood to Fosston, Minn., 125 miles, is reported in U.S. papers to have been let to Richards, Lundeen & Co., of Minneapolis, Minn. The character of the work is

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Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Goteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
Union Elevator, East St. Louis, Ill.	"	1,100,000 "
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160 acres at \$4.50 per acre, 1st instalment \$107.85, and 9 equal instalments of \$90.
160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

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said to be light, and that it is intended to complete the line this year. It is said that the new line will start at Glenwood and run almost due north and cross Northern Pacific and Great Northern, bending to the west at or above Fosston to meet C.P.R. lines on the border of Manitoba at Gretna or Emerson, or both. The territory to be traversed is not an expensive one to build in. The line is to be built low grade, and will not involve any particular engineering feats. It is estimated that the new line will not cost much over \$10,000,000. It will not entail the construction of any important terminals, as it will be a link connecting now disconnected sections of the C.P.R. system. The most important question in connection with the plan must remain unanswered until the directors of the C.P.R. decide to make public the proposition they will lay before their stockholders. If the directors decide to closely follow their past policy, the entire construction work may be financed by an issue of debenture bonds which are a 4% security selling around par in the English markets. It is not considered probable, however, that the C.P.R. will directly shoulder the responsibility of this construction by issuing its own securities, but rather the stockholders of M., St. P. & S.S.M. Ry. will be asked to increase the bonded debt of that road, the new bonds to be guaranteed by the C.P.R. as are the bonds now outstanding.

Plans have been filed for an extension of the Birchwood branch from Birchwood to Reserve Village, Wis., about 20 miles, and a contract is reported to have been let to G. M. Huss for the grading. (May, pg. 179.)

C.P.R. Rolling Stock.—The Minister of Railways recently laid before the House of Commons a return showing the amount expended or about to be expended by the C.P.R. under the terms of the agreement made in 1902 for the issue of \$20,000,000 of additional stock, of which \$9,000,000 was to be for rolling stock. The first section of the return gives the rolling stock actually acquired and paid for, and the second section shows the rolling stock being constructed for delivery this year. The rolling stock acquired includes 116 locomotives, value \$2,143,068; 20 sleeping, dining, parlor, official and pay cars, value \$250,798; 30 passenger, tourist and colonist coaches, value \$248,237; 14 baggage, mail and express cars, value \$62,600; 133 conductor's vans, value \$113,623; 3,839 box, stock, refrigerator and furniture cars, value \$3,484,578; 546 flat, coal and ore cars, value \$434,925; 50 other cars, snow ploughs, etc., value \$223,785; total value, \$6,961,619. The rolling stock on order includes 120 locomotives, value \$2,593,048; 14 sleeping and dining cars, value \$273,465; 39 passenger coaches, value \$396,050; 357 box, stock and refrigerator cars, value \$422,875; 1,455 flat, coal and ore cars, value \$1,048,200; total value, \$4,733,638, making altogether \$11,695,257 expended or appropriated for rolling stock.

The Canadian Northern Ry. has taken over the 4 locomotives that are being built at the Brooks Works of the American Locomotive Co. for the Great Northern Ry. of Canada. They are two passenger and two freight locomotives, and will be placed on the Port Arthur-Winnipeg section of the line. These will bring up the total of new locomotives to be placed in service on the C.N.Ry. during the year to 31.

The C.P.R. has purchased for advertising purposes in U.S. hotels and railway stations, a number of oil paintings representing scenes in the Rocky Mountains by Canadian artists.

The G.T.R. recently moved into its new passenger and ticket office at 360 Washington St., Boston, Mass.

Mainly About People.

Wm. Orr, from 1887 to 1901 General Freight Agent of the Duluth, South Shore and Atlantic Ry., died in London, Eng., May 5.

W. G. N. Thompson, formerly Superintendent of the Welland canal, died at St. Catharines, Ont., May 12, aged 70.

H. T. Hughes, C.E., resident engineer for the contractors for the superstructure of the Quebec bridge, has opened an office in Quebec.

R. Parker, a 12-year-old son of the late J. Parker, C.P.R. agent at Ottawa, was killed there May 21, by being caught by a live electric wire.

C. A. Monkman, chief clerk in the C.P.R. construction department at Winnipeg, is announced to be married to Miss J. M. Allen there on June 2.

Capt. J. H. Campbell, who was in command of the Dominion cruiser Newfield at the time she was wrecked in 1900, died at St. John, N.B., May 23.

C. E. Turner, chief clerk of the Michigan Central Car Service Association, Detroit, Mich., died there May 26. He was a native of Elora, Ont.

Miss N. M. Bell, youngest daughter of J. Bell, K.C., General Counsel of the G.T.R., was married at Belleville, Ont., in May, to W. D. Chisholm.

David Brown, who recently resigned his position as First Assistant General Freight Agent of the G.T.R. at Chicago, is taking a trip to Scotland.

Manager Winfield, of the Nova Scotia Telephone Co. at New Glasgow, has been appointed Manager of the Prince Edward Island Telephone Co.

A. C. Turpin, Travelling Passenger Agent, Chicago, Rock Island & Pacific Ry., has removed his headquarters from Montreal to 77 Yonge St., Toronto.

R. G. Reid, of the Reid Newfoundland Co., accompanied by Mrs. and Miss Reid, are visiting in Boston, Mass., and will visit Great Britain during the summer.

T. Tait arrived at Suva, Fiji, May 21, en route to Melbourne, Australia, to take up his new position as Chairman of the Board of Railway Commissioners for Victoria.

H. W. Harding, who has been appointed Superintendent's accountant at Regina, Assa., was formerly in the accountant's department of the Santa Fe Rd., at Topeka, Kan.

Capt. J. Gaskin, of Kingston, Ont., as a result of his carriage being run into by a street car there on May 24, had three ribs broken. He will be laid up for some time.

M. Murphy, D.Sc., Provincial Engineer of Nova Scotia, and K. Tully, C.E., engineer of the Toronto Harbor Commissioners, have been gazetted Companions of the Imperial Service order.

A. F. Read, Foreign Freight Agent G.T.R., Montreal, was given a dinner at the Montreal Club by a number of merchants May 20, prior to leaving for a holiday trip to Great Britain.

M. J. Kennedy, formerly General Superintendent of the Montreal Street Ry., has been appointed to a position on the operating department of the Brooklyn, N.Y., Rapid Transit Co.

Thos. Skinner, of London, Eng., a director of the C.P.R., the Commercial Cable Co., and of the Hudson's Bay Co., was married there May 26 to Mrs. C. J. Williamson, of New York.

W. W. Ashaid, Superintendent of Telegraphs, G.T.R., was elected a member of the Association of Railway Telegraph Superintendents at the recent annual meeting at New Orleans, La.

S. T. Morrow, who acted as auditor of construction for the Cuba Co. during the construction of the railway, has returned to Montreal, where he was formerly engaged in the C.P.R. service.

Bruce Price, the architect who designed the Chateau Frontenac, Quebec, the Place Viger, Montreal, and the Banff hotels for the C.P.R., died somewhat suddenly in New York city, May 30.

Allan Cameron, agent Portland and Asiatic Steamship Co., Hong Kong, China, and Mrs. Cameron, are spending a holiday in Canada, and have been visiting J. B. Cameron, Macpherson ave., Toronto.

J. M. Robb, Superintendent of Motive Power, Canadian Northern Ry., is at present located at Kingston, Ont., inspecting the locomotives being built by the Canadian Locomotive Co. for the C.N.R.

W. K. Thompson, heretofore Superintendent C.P.R. at Brownville Jct., Me., was entertained at dinner there May 22, by the C.P.R. officials and citizens, prior to leaving for his new district at Moose Jaw, Assa.

C. M. Hays, 2nd Vice-President and General Manager, was the recipient of birthday congratulations on the occasion of the recent trip of Sir C. Rivers Wilson, President G.T.R., and his party to Muskoka, he having been born at Rock Island, Ill., May 16, 1856.

E. Tiffin, General Traffic Manager I.C.R., has reached Moncton, N.B., after a trip to California, returning via Vancouver. He took a holiday on account of indisposition, and to bring home his daughter who had been in California for some time for her health.

Geo. Fisk, station master at Lorneville, Ont., and who has been for about 50 years in the employ of the G.T.R., and the Midland Ry. when it was an independent organization, was given a purse of gold by the residents on the occasion of his recent retirement from active work.

R. C. Boxall, who died at St. John, N.B., May 12, aged 70, was engineer of construction on the Windsor and Annapolis Ry., (now Dominion Atlantic Ry.); the New Brunswick and Prince Edward Island Ry., the I.C.R. from Paisec Jct. to the N.S. boundary, and the railway from Maccan to the Joggin's mines.

Sir T. G. Shaughnessy, President C.P.R., has been making his regular inspection of the transcontinental line. He went direct through to Victoria, B.C., where he gave evidence before the Committee of the Legislature charged with the investigation of alleged corruption in connection with the Columbia and Western Ry.

J. Payne, Auditor of Passenger Accounts for the G.T.R., died at Montreal May 21. Born in England, he entered the service of the G.T.R. 30 years ago, acting successively as travelling auditor, accountant for the Great Eastern Fast Freight Line, accountant at the general offices, Montreal, and since 1896 as Auditor of Passenger Accounts.

A. Price, prior to leaving Toronto for Fort William, Ont., to become Superintendent of C.P.R. district 19, was given an address and a gold chain by the young men, and a set of gold cuff buttons by the ladies of the Broadway Tabernacle, and was entertained at dinner by the officials of the Toronto staffs of the C.P.R. and the Dominion Express Co.

W. Downie, on leaving Nelson, B.C., recently to become General Superintendent C.P.R. Atlantic Division at St. John, N.B., was presented with a cut glass liqueur set by the office staff, and with a book case and several sets of standard works by the employees of the company's lake steamer department at Nelson, and was entertained at dinner by the residents.

L. O. Armstrong, who has charge of immigration work for the C.P.R., has been asked to superintend the production of the Indian drama, Hiawatha, at Cincinnati, Ohio, in Sept.; and has been invited to advise the civic authorities at Chicago in regard to the reproduction of old Fort Dearborn in connection with the forthcoming centennial of the foundation of that city.

L. Mulkern, who has been appointed Canvassing Freight Agent C.P.R. at Toronto, was born at London, Ont., June 18, 1871, and entered railway service 1890, since which his record has been: 1890 to 1897, operator Toronto freight office; 1897 to 1901, freight clerk, London, Ont.; 1901 to June, 1903, clerk in office of General Freight Agent, Toronto; entire service with C.P.R.

D. G. Ross, formerly Superintendent C.P.R. at Fort William, Ont., did not resign his position, as stated in our last issue, but went to California for some months on leave of absence. His health has very much improved and he temporarily took charge of his old district after F. J. Brady left for Winnipeg on becoming General Superintendent, and before A. Price arrived at Fort William to succeed Mr. Brady. Mr. Ross has twice been appointed Superintendent at Cranbrook, B.C.

D. T. Lawrence, who has been appointed Manager of the National Despatch-Great Eastern Line, at Buffalo, N.Y., was born at Marysville, Ohio, July 14, 1871, and entered railway service 1890, since which his record has been: Mar. 28, 1890, to Nov. 16, 1892, clerk in General Freight office, Central New England and Western Rd., at Poughkeepsie, N.Y.; Nov. 16, 1892, to July 1, 1899, clerk in office New England Agency National Despatch Line; July 1, 1899, to May 1, 1903, Manager New England Agency National Despatch-Great Eastern Line.

T. A. Summerskill, Superintendent of Motive Power, Central Vermont Ry., was somewhat seriously injured May 5, by a revolver shot received in his house at St. Albans, Vt. He was awakened by a burglar in the house, and went after him whilst Mrs. Summerskill opened a window and called for assistance. Col. A. A. Hall, who lives opposite, came over, and as a result of meeting in the dark he and Mr. Summerskill attacked each other, Col. Hall believing he had got the burglar, the result being that Mr. Summerskill received a shot in the body.

C. W. Burpee, who has been appointed Superintendent C.P.R. district 1, at Brown-

ville Jct., Me., was born at Keswick, N.B., in 1863, and entered railway service in 1877, since which his record has been: 1877 to 1881, yard man New Brunswick Ry. at Caribou, Me.; 1881 to 1884, passenger conductor same road running between Edmundston and Woodstock, N.B.; 1884 to 1888, roadmaster Edmundston and Aroostook branches same road; 1888 to the transfer of the N.B. Ry. to the C.P.R., roadmaster at Woodstock; on the transfer he was appointed roadmaster C.P.R. at St. John, N.B., remaining there until his present appointment.

Wm. Coyne, who has been appointed Assistant to the President, Consolidated Lake Superior Co., Sault Ste. Marie, Ont., was born at Calumet, Ind., July 14, 1866, and entered railway service in 1880, his record being: 1880 to 1882, telegraph operator, Chicago, Milwaukee and St. Paul Ry.; 1882 to 1885, telegraph operator Minneapolis and St. Louis Rd.; 1885 to 1898, train dispatcher same road; 1898 to 1899, Chief Train Dispatcher Spokane Falls and Northern Ry.; 1899 to 1900, Train Master and Superintendent Virginia and Southwestern Ry.; 1900 to 1903, Traffic Manager Dominion Coal Co., Sydney and Louisburg Ry., Black Diamond Steamship Line, and Dominion Iron & Steel Co., Ltd., at Glace Bay, N.S.

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J. E. Muhlfeld, formerly Superintendent of Machinery and Rolling Stock, I.C.R., and latterly Superintendent of Motive Power, Baltimore and Ohio Rd., at Newark, Ohio, has been appointed General Superintendent of Motive Power for that company, with office at Baltimore, Md., vice F. D. Casanave, resigned.

A. Piers, who has been appointed Manager of C.P.R. Steamship Lines, was born in 1851, and received his education in France and England. He entered railway service in 1870 as clerk in the office of the General Manager of the Great Western Ry. of Canada, since which he has been, consecutively, to 1882, secretary and assistant to General Manager, same road; 1882 to 1889, secretary to General Manager, C.P.R.; 1889 to 1891, engaged in shipping business at London, Eng.; 1891 to 1901, Supt. Steamship Lines, C.P.R., and Dec., 1901, to June, 1903, General Superintendent of C.P.R. Steamships.

F. P. Brady, who has been appointed General Superintendent C.P.R. Central Division at Winnipeg, was born at Haverhill, N.H., June 22, 1853, and entered railway service, 1869, as station baggage master Passumpsic Ry., since which he has been consecutively, 1873 to 1880, train dispatcher Northern Rd., at Concord, N.H.; 1880 to 1888, Chief Train Dispatcher Southeastern Ry., at Richford, Vt.; 1888 to 1889, Trainmaster C.P.R.; 1889 to 1898, Assistant Superintendent same road; 1898 to May, 1901, Superintendent same road at Smith's Falls, Ont.; May, 1901 to Sept., 1902, Superintendent districts 10 and 11 same road at Toronto; Sep., 1902, to May, 1903, Superintendent district 19 same road at Fort William, Ont.

G. H. Webster, C.E., who has been appointed Right of Way Agent for the C.P.R., was born at Creemore, Ont., Jan. 31, 1857. He entered railway service in 1872, since which he has been consecutively May, 1872, to Jan. 31, 1879, article student Northern Ry. at Toronto; Jan., 1879, to April, 1882, assistant engineer Northern and Hamilton and Northwestern railways; April, 1882, to April, 1883, engaged in private practice in Winnipeg, Man.; June, 1883, to June, 1885, Assistant Engineer Manitoba and Northwestern Ry.; June, 1885, to July, 1900, Engineer-in-Charge same road; July, 1900, to Oct., 1901, Resident Engineer of main and branch lines on Western Division C.P.R., east of Moose Jaw; Oct., 1901, to May, 1903, General Tie Agent.

W. H. Moore, who has been appointed Assistant to the President Toronto Ry. Co., was born Oct. 19, 1872. The old family home was near Norwich, Ont. His father, the Rev. J. B. Moore, now resides at Delhi, Ont. He was educated at Woodstock (Ont.) College and the University of Toronto, graduating B.A. in 1894, and held a fellowship in political science at the latter for five years. He subsequently engaged in journalism and studied law, being called to the bar in 1897. Afterwards he entered the service of Mackenzie, Mann & Co., becoming Assistant Solicitor of the Canadian Northern Ry., Secretary of the James Bay Ry., and of the Nipissing and James Bay Ry. He is also a director of the Great Northern Ry. of Canada.

Alfred Price, who has been appointed Superintendent C.P.R. at Fort William, Ont., was born Dec. 6, 1861, and entered railway service Sept., 1879, since which he has been consecutively to 1881, operator, messenger and clerk Credit Valley Ry.; 1881 to 1882, car accountant same road at Toronto; 1882 to 1884, operator and relief dispatcher C.P.R. at Toronto; 1884 to July, 1888, train dispatcher same road at Toronto; July, 1888 to May, 1896, car distributor same road at Toronto; May, 1896, to Aug. 1898, car distributor and

Chief Train Dispatcher same road at Toronto; Aug., 1898, to May, 1901, Superintendent same road at Toronto; May, 1901, to Sept., 1902, Superintendent districts 8 and 9 same road at Toronto; Sept., 1902, to May, 1903, Superintendent districts 10 and 11 same road at Toronto.

James Osborne, who has been appointed General Superintendent, Eastern division, C.P.R., at Montreal, was born Sept. 19, 1861, at Montreal, and entered railway service in 1874, since which he has been consecutively: two years ten months, office boy, G.T.R.; chief clerk to works manager, same road; three years, chief clerk to Mechanical Superintendent, C.P.R.; a year and a quarter chief clerk to Vice-President, same road; three years Car Accountant, same road; 1890 to April, 1896, Superintendent Car Service, same road; 1892 to April, 1896, also in charge of fuel department; April, 1896, to April, 1899, Assistant to the President, same road; April, 1899, to May 1, 1901, General Superintendent Western Division, same road, at Winnipeg; May, 1901, to April, 1903, General Superintendent Atlantic Division, same road, at St. John, N.B.

W. Downie, who has been appointed General Superintendent Atlantic Division C.P.R. at St. John, N.B., was born at Rock Currie, Ireland, Nov. 12, 1850, and entered railway service 1869, since which his record has been: 1869 to 1870, telegraph messenger Northern Ry. of Canada; 1870 to 1871, telegraph operator same road; 1871 to 1876, train dispatcher same road; 1876 to Oct., 1879, Assistant Superintendent same road; Oct., 1879, to July, 1886, Chief Train Dispatcher Northern and North Western Ry.; July, 1886, to May, 1887, Assistant Superintendent Pacific Division C.P.R. Port Moody, B.C.; May, 1887, to 1897, Assistant Superintendent Pacific Division C.P.R., Vancouver, B.C.; 1897 to Mar., 1901, Superintendent C.P.R. at Vancouver, B.C.; Mar., 1901, to May, 1903, Superintendent C.P.R. lines and steamers in the Kootenay district, Nelson, B.C.

C. W. Spencer, who has been appointed General Superintendent of Transportation C.P.R. lines east of Port Arthur at Montreal, was born at Kemptville, Ont., Oct. 31, 1857, and entered railway service May 7, 1871, since which he has been consecutively to 1874 operator and clerk at Ottawa station; 1874 to May, 1880, assistant agent at Ottawa; May, 1880, to Jan., 1881, assistant train dispatcher; Jan. to May 11, 1881, Chief Train Dispatcher; May 11 to June 29, 1881, Traffic Superintendent; June 29, 1881, to Aug. 1, 1884, Assistant Superintendent; Aug. 1, 1884, to Sept. 30, 1887, Assistant General Superintendent; Oct. 1887, to April 30, 1903, General Superintendent, eastern division, at Montreal, entire service on C.P.R. He is also Vice-President and Managing Director of the Kingston and Pembroke, the Pontiac Pacific Jct., and the Ottawa Northern and Western railways.

D. G. Ross, who has been appointed Superintendent C.P.R. at Nelson, B.C., was born at Napanee, Ont., Feb. 16, 1864, and entered railway service in 1881, since which his record has been: 1881 to 1883, operator and agent Chicago and North Western Ry., in Iowa; May, 1883 to Dec., 1883, operator and agent C.P.R., at various points in Manitoba; Dec., 1883, to Dec., 1884, assistant to Chief Train Dispatcher, Winnipeg; Jan., 1885, to July, 1886, operator, Winnipeg terminals; Aug., 1886, to May, 1895, train dispatcher at Winnipeg, Fort William, and Rat Portage; May, 1895, to May, 1900, Chief Train Dispatcher and Trainmaster, Manitoba and North Western Ry., at Portage la Prairie, Man.; May, 1900, to Jan., 1901, Assistant Superintendent Brandon section and Manitoba branch lines, C.P.R., at Winnipeg; Jan., 1901, Superintendent Fort William and Port Arthur division, Fort William. During the summer of

1902 Mr. Ross was given leave of absence on account of ill health, and spent the winter in California.

A. J. Gorrie, who has been appointed General Superintendent of the Great Northern Ry. of Canada, was born at Raith, Kirkcaldy, Scotland, Dec. 10, 1868, and commenced his railway career in May, 1883, as clerk in the office of the General Goods Manager, Caledonian Ry., at Glasgow, and served with various departments and at several stations of that Co., coming to Canada in May, 1892, since which his record has been: 1892 to Aug., 1894, clerk in Superintendent's office, C.P.R., at Fort William, Ont.; Aug., 1894, to Oct., 1899, chief clerk and accountant, same office; Oct., 1899, to July, 1900, in charge of the operating department, Canadian Northern Ry., at Winnipeg, under the General Superintendent; July, 1900, to Feb., 1902, Superintendent, Port Arthur, Duluth and Western Ry., at Port Arthur, Ont. (now part of the Canadian Northern Ry.); Feb., 1902, to Nov., 1902, Superintendent, Canadian Northern Ry., at Winnipeg; Nov., 1902, to April, 1903, Superintendent, Ontario division C.N.R. at Port Arthur.

C. A. Hayes, who has been appointed Assistant General Freight Agent G.T.R., at Chicago, Ill., was born at West Springfield, Mass., Mar. 10, 1865, and entered railway service 1882, since which his record has been: 1882 to 1884, clerk Freight Auditor's office, Connecticut River Rd., now Boston and Maine Rd.; 1884 to Oct., 1887, similar position Boston and Lowell Ry., at Boston, Mass.; Oct., 1887, to Nov., 1890, clerk in office of General Freight Agent, Boston and Lowell Ry., and its successor, the Boston and Maine Rd.; Nov., 1890, to June, 1892, General Freight and Passenger Agent Central New England and Western Ry., at Poughkeepsie, N.Y.; June, 1892, to Oct., 1892, Division Freight Agent Philadelphia and Reading Rd. while it had control of the C., N. E. and W. Ry. at Hartford Conn.; Oct., 1892, to June, 1896, New England Agent National Despatch Line at Boston, Mass.; June, 1896, to July, 1899, New England Agent and Acting General Manager National Despatch Line at Boston; July, 1899, to May, 1903, Manager National Despatch Great Eastern Line, Buffalo, N.Y.

W. F. Tye, whose portrait appears on the first page of this issue, was born at Haysville, Ont., Mar. 5, 1861, and entered railway service in 1882 since which he has been consecutively to 1885, rodman, leveller, transitman on location and assistant engineer on construction C.P.R.; 1886 to 1887, assistant engineer on construction St. Paul, Minneapolis and Manitoba Ry.; 1888 to 1889, engineer of track and bridges Tampico branch, Mexican Central Ry.; 1900, locating engineer Great Falls and Canada Ry.; 1891 and 1892, engineer in charge of location and division engineer Pacific extension Great Northern Ry.; 1893 and 1894, engineer in charge of change of gauge Alberta Ry. and Coal Co.'s line; 1895, Chief Engineer Kaslo and Slocan Ry. and Trail Creek Tramway; 1896 to Mar., 1900, Chief Engineer Columbia and Western Ry., now C.P.R.; Mar. 1900, to April, 1902, Chief Engineer of Construction, C.P.R. at Winnipeg. In May, 1902, Mr. Tye's office was removed to Montreal, and on the reorganization of the engineering department under Chief Engineer E. H. McHenry he was appointed Assistant Chief Engineer.

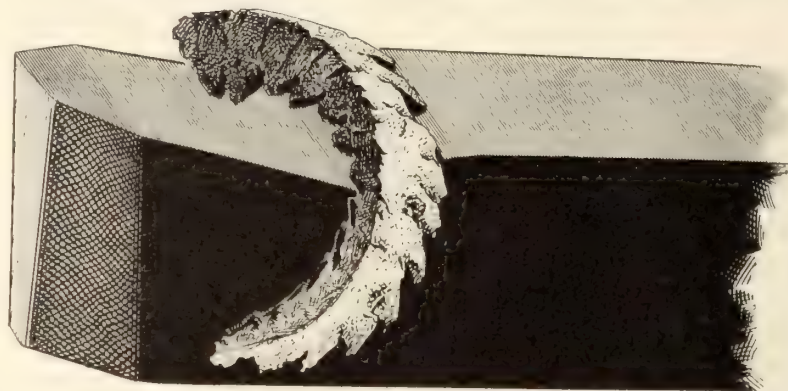
H. W. D. Armstrong, who has been appointed Chief Engineer, Lindsay, Bobcaygeon and Pontypool Ry., was born at Ottawa, Aug. 1, 1852, and has been engaged in engineering service on the Canadian railways since 1868, with the exception of about a year in 1874-5, when he was engaged as assistant engineer on the Toronto waterworks.

His railway service has been: 1868 to 1870, engineering apprentice Intercolonial Ry., under Sandford Fleming; 1870 to 1874, on the staff of G. R. Reid, Chief Engineer of the Great Western Ry. of Canada, being specially engaged on construction of the air line, the double tracking between Glencoe and Windsor, Ont., and on surveys for the projected bridge between Windsor, Ont., and Detroit, Mich.; 1875 to 1881, assistant engineer on construction of sections of C.P.R. between Selkirk, Man., and Rat Portage, Ont., for Dominion Government; 1881 to 1883, principal assistant to the Chief Engineer C.P.R., that company having taken over the line from the Government; 1883 to 1886, Chief Engineer Portage, Westbourne and North Western Ry., until its absorption, and then Division Engineer C.P.R. on construction from Heron Bay, Ont., easterly; 1886 to 1888, Division Engineer of Construction C.P.R. between Smith's Falls, Ont., and Montreal; 1888 to 1892, Division Engineer C.P.R., Toronto, on construction of Don branch, Esplanade works, Toronto, and line from London, Ont., to Detroit, Mich.; 1892 to 1896, Division Engineer C.P.R., Chapeau, Ont., while work of filling up wooden trestles and bridges, and substituting permanent work was in progress; 1896 to May, 1897, on location survey Lake Manitoba Ry. and Canal Co., now Canadian Northern Ry., from Gladstone to Lake Winnipegosis; May, 1897 to 1898, in charge of 62 miles of construction Crow's Nest Pass line

C.P.R.; 1898 to 1899 on location survey Manitoba and South Eastern Ry., now Canadian Northern Ry., from Manitoba boundary to Rainy River; 1899 to May, 1903, with C.P.R. in various capacities as engineer on special work and maintenance of way.

C. F. Gildersleeve, who was recently elected President of the Dominion Marine Association, and whose portrait appeared in our last issue, was born at Kingston, Ont., Oct. 17, 1833. His father, Henry Gildersleeve, was a shipbuilder from Chatham (now Gilder-

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sleeve), Connecticut, U.S.A., who came to Kingston and completed the building of the steamer Frontenac, the first steamer on Lake Ontario. Shortly afterwards he built and became chief owner of the steamer Queen Charlotte, which ran between Trenton and Prescott, Ont., and subsequently built the steamers Sir James Kempt, Commodore Barrie, Henry Gildersleeve, Prince of Wales and New Era. He managed these steamers successfully until his death, when his eldest son, Overton S. Gildersleeve, took over the business and built the steamer Bay of Quinte. On his death C. F. Gildersleeve, a younger brother, became the owner of the then existing steamers. He had been educated principally at Upper Canada College, Toronto, studied law at Kingston and Toronto and practised at Kingston until, on the death of his brother, the necessity for continuing the steamboat business built up by those before him, compelled him to give up his profession. He built and owned the Corinthian, Norseman, Maud, Welshman and North King, and also owned, through purchase, the Hastings and Hero. The routes of these steamers, for the most part, were from Rochester to Port Hope, from Rochester to the Bay of Quinte and Thousand Islands, and from Kingston to Picton and Belleville. In 1893 he formed and became first Manager of the Lake Ontario and Bay of Quinte Steamboat Co., which took over the steamers he had previously owned, and to which others have been added. In 1894 he handed over the management of that company to his son, H. H. Gildersleeve, and became General Manager of the Richelieu and Ontario Navigation Co., with office in Montreal. During the time Mr. Gildersleeve had his business headquarters at Kingston, he took an active part in the political and local affairs of the city, supporting the Liberal party. He served as Alderman for many years and one year as Mayor. He took a prominent part in the promotion of the Kingston and Pembroke Ry., and was President of the company from its formation until it was recently taken over by the C.P.R. Co. He also took an active part in the establishment of the Kingston School of Mining and Agriculture. An Anglican in religion, he was Chairman of the committee which secured the enlargement of St. George's Cathedral at Kingston.

Dominion Marine Association.

The constitution and by-laws have been adopted and issued. Following are some of the principal provisions:—

Its purpose shall be to consider and take action upon all questions of general interest relating to the navigation and carrying business of the waters of the Dominion, and to protect the common interests of its members, and to improve the character of the carrying service rendered to the public on the waters named.

Every owner or authorized representative of an owner of any steam or other vessel navigating any of the waters above named shall be eligible for membership.

Every member shall pay a sum equivalent to 3c. for each ton of net registered tonnage of steam vessel property, and 1c. for each ton of net registered tonnage of sailing or barge property, owned or represented by such member, which payment shall cover the annual dues of such member for the year ending Mar. 31, 1904. The rate per ton of the annual dues to be paid by the members thereafter shall be fixed at the first annual meeting of the Association, and shall be subject to change at each annual meeting thereafter.

The affairs shall be managed by an executive committee of 12 who shall be elected annually at the annual meeting.

During the first year of the Association and until the election of a new executive commit-

tee, the officers of the Association, including the members of the executive committee, shall be those appointed at the organization meeting held in Ottawa April 7, 1903. Thereafter there shall be a President and two Vice-Presidents, all of whom shall be elected by and shall be members of the executive committee. The executive committee shall also appoint a Secretary who shall also be Treasurer of the Association, and shall receive such remuneration as may be fixed by the executive committee.

The executive committee shall prescribe rules and regulations to govern their proceedings and the conduct of the affairs of the Association.

The Association may have honorary members who may be elected or appointed by the executive committee.

The annual meeting shall be held at such place and at such time between Jan. 1 and Mar. 31 in each year, as the executive committee may determine.

In all meetings of the Association each member shall be entitled to cast one vote for each 1,000 or fraction of 1,000 net registered tons of vessel property owned or represented by him and in respect of which his annual assessment shall have been computed, provided that no member shall be entitled to cast more than 10 votes. In all the meetings of the executive committee each member shall be entitled to cast one vote.

The Secretary-Treasurer has issued a circular to vessel owners, inviting them to become members of the Association. It points out the important work already accomplished in securing the abolition of tonnage dues and inspection fees, and states that the Government has announced its intention of making the customs revenue bear the entire cost of its own protection. The circular says:—"The necessity for a strong and permanent organization remains. Some of the concessions granted by the Government are only temporary, and a marine association is required in order that the Government may have assistance in obtaining a clear insight into marine affairs, as well as the necessary support in carrying out reforms, and in order also that matters may be so controlled and directed that vessel interests will continue to deserve and receive the attention they desire. There are always many questions to be considered, and new difficulties requiring attention are constantly arising. For these reasons, and for another, that a very strong organization, the Lake Carriers' Association, is doing such good work to the south of the international boundary line, it must be granted that the Dominion Marine Association is entitled to the strong and generous support of a general and representative membership in Canada."

Montreal Steel Works, Limited.

This company, which was incorporated at the last session of the Quebec Legislature, has a capital of \$1,500,000, of which \$800,000 is 7% non-cumulative preferred shares and \$700,000 ordinary shares. The directors are K. W. Blackwell, J. R. Wilson, E. B. Greenshields, C. H. Godfrey and W. F. Angus, Montreal, and C. Scott, Philadelphia, Pa. The Bank of Montreal recently offered for subscription the whole of the preferred shares at par and \$400,000 of the ordinary shares at \$50 each, applicants for preferred shares to subscribe for one share of ordinary stock for each two shares of preferred. The preferred shareholders are entitled to a preference dividend of 7% per year, payable 1¼% quarterly. It is said the issue was over-subscribed.

The prospectus states that the company was organized as at Jan. 1, 1903, to purchase as a going concern the business and goodwill of the Canada Switch and Spring Co., Ltd., manufacturers of steel castings, springs, rail-

way car and locomotive parts, and general appliances in iron and steel for steam and electric roads, and for the general mechanical industries of the country. The capital and plant of the Switch Co. being insufficient to enable it to provide for the increased business offering, this re-organization will supply the additional capital required for extensions, etc., and largely increase the output and earning capacity of the company. The paid-up capital of the Canada Switch and Spring Co., Limited, was bonds, \$121,666.67; preferred shares, \$243,333.33; ordinary shares, \$243,333.33. The business from its inception, 10 years ago, has always been profitable. The net profits for 1902 were \$118,952.85. The assets, movable and immovable, which are to be conveyed over, have been valued by F. R. F. Brown, M.I.M.E., at \$509,929. The shareholders of the Canada Switch and Spring Co. have agreed to accept for their property and plant \$300,000 in cash and \$400,000 in ordinary stock, the latter representing \$200,000 at 50 or \$500,000 in all. The remaining \$300,000 of common stock is to remain in the Treasury for future extensions and not to be issued at less than par. The net profits of the Canada Switch and Spring Co. for 1902 were \$118,952.85. The interest at 7% on \$800,000 preferred stock of the Montreal Steel Works would amount to \$56,000, leaving \$62,952.85 available for dividend on \$400,000 ordinary stock, or over 15%, but which on the subscription price of \$50 a share amounts to over 31%. Additional earnings, due to extension of plant, would proportionately increase the amount available for dividend on the ordinary shares. The shareholders of the Canada Switch and Spring Co. undertook to apply for not less than \$400,000 of the preferred stock and \$200,000 of the ordinary stock of the Montreal Steel Works. The directors and officers of the Switch Co. will continue to act in their relative capacities, and the Managing Director, K. W. Blackwell, is under contract to act as such in the new company for, at least, five years, which is sufficient guarantee that the business will be conducted on the same lines which have rendered it successful in the past.

Investigation of Railway Accidents.—In the House of Commons, May 18, the Minister of Railways, replying to a question asked by E. F. Clarke, M.P. for West Toronto, stated that the attention of the Government had not been called to the verdict of the coroner's jury empanelled to inquire into the cause of the railway accident at West Lorne, Ont., on April 29, as a result of which three trainmen were killed. If the facts, however, were as stated by Mr. Clarke, it would appear to devolve upon the Provincial authorities, as charged with the administration of criminal justice, to take any action which might be proper in the premises. The Government had not been able to select a person possessing the precise qualification for taking charge of investigations in cases of railway accidents, but was on the alert to select such a person as required. In the meantime a temporary appointment has been made, and an investigation held in the case of the Windsor Junction collision on the Intercolonial Ry. He was informed that no rules were submitted for the approval of the Government by the Lake Erie and Detroit River Ry. Co.

Toronto, Hamilton and Buffalo Ry.—At the annual meeting in Toronto June 2 the President and Secretary-Treasurer presented their annual reports, showing very satisfactory financial results for the year. N. Kingsmill, K.C., and E. Fisher, General Superintendent, acted as scrutineers, and the directors were re-elected as follows: President, J. N. Beckley, Rochester, N.Y.; Vice-Presi-

dent, Sir T. G. Shaughnessy, Montreal; Secretary-Treasurer, C. F. Cox, New York; other directors, W. K. Vanderbilt, W. H. Newman, New York; S. E. Peabody, Boston, Mass.; and H. B. Ledyard, Detroit, Mich. The

company contemplates expending a considerable amount, filling in bridges and improving embankments east of Hamilton, and in the purchase of new equipment, including two locomotives.

The C.P.R. has acquired the interests of the bondholders of the Algonquin hotel at St. Andrews, N.B.

The Canadian Northern Ry. put the standard train rules in force on its lines May 17.

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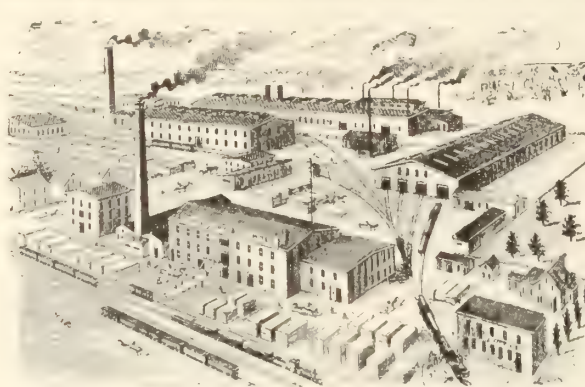
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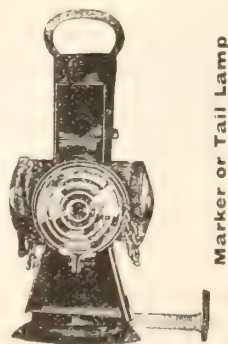
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Adams River and Hectate Channel Ry. Co.—C. Elliott, H. McLean and J. R. Webster are applying at the current session of the B.C. Legislature for the incorporation of a company with this title to construct a railway from the mouth of Adams river to the Klaskan river valley and to the mouth of Gold river on the west coast of Vancouver island, with a branch from Davie river to Hectate channel, and other branches. (Jan., pg. 18.)

Alaska.—The Alaska Rd. Co. has been incorporated under the laws of New Jersey to construct a railway from Valdez to Eagle City, on the Yukon river, with a branch from the headquarters of Tanana river to Behring strait. W. B. Bradley, G. T. Foster, of Jersey City, and W. H. Crawford, of New York, are the incorporators. (May, pg. 145.)

Algoma Central and Hudson Bay Ry.—The total length of track laid is 64 miles, about a mile and a half beyond Mekatina, and grading has been completed through to a junction with the line from Michipicoten, near Josephine mine. We were recently advised that it was expected to resume tracklaying by the end of June, by which time bridge work would have been sufficiently advanced to enable progress to be made. It is then intended to complete tracklaying to mileage 92, which will reach Montreal river. This bridge will be an extensive one, and will require about a year to construct. Up to May 5 a contract had not been let for it. It is not expected that there will be any grading done this year on the projected extension of the main line from the junction with the Michipicoten line, towards the C.P.R. main line at or near White river. (May, pg. 145.)

Algonquin Lumber and Power Co.—The applicants at the current session of the Dominion Parliament for an act incorporating a company with this title to construct several lengths of railway to connect North Bay with Georgian Bay, and Georgian Bay with the C.P.R. at Myrtle, and in Dufferin, Peel or York counties are J. R. Booth, of Ottawa; L. T. Barclay, A. G. Henderson, E. F. Burton, of Toronto; J. Carnegie, Port Perry, Ont.; M. Carr, M.L.A., Powassan, Ont.; C. A. Barclay, S. H. Stevenson, Brougham. The powers sought include the development of electrical power for the operation of the different lines of railway, etc. In 1902 some surveys were made for the construction of an electric railway from Maple Lake, on the Canada Atlantic Ry. to Port Cockburn and Rosseau and to develop some water powers there. (Aug., 1902, pg. 266; May, pg. 150.)

Atlantic and Lake Superior Ry.—The application to the Dominion Parliament for an act extending to 1908, the time for the completion of the company's line, which was planned to reach Lake Superior, and authorizing the construction of branch lines not exceeding 25 miles in any one case, was unanimously thrown out by the Railway Committee of the House of Commons. The railway runs from Metapedia, on the Intercolonial Ry., to New Carlisle, Que., 100 miles, and is being operated by the bondholders. In the course of the discussion on the Atlantic, Quebec and Western Ry., which proposes to construct a line from Gaspe Basin to the Intercolonial Ry., near Causapsal, through the centre of Gaspe county, it was stated that a representative of the bondholders of the A. and L.S. Ry. had an interview with the Premier and stated that the bondholders were not disposed to extend the line at present to Gaspe Basin. (Feb., pg. 37.)

Bay of Quinte Ry.—A route for the projected extension of the B. of Q. Ry. from Tweed to Bannockburn, Ont., on the Central

Ontario Ry., has been surveyed, and P. McCoy, contractor, of Deseronto, who constructed the direct line between Napanee and Deseronto for the company, is reported to have been given the contract for its construction. (May, pg. 145.)

B.C. Northern and Mackenzie Valley Ry. Co.—R. L. Patterson, J. W. Haskins, Jas. Finmore and C. H. Lugin are applying at the current session of the B.C. Legislature for an act incorporating a company with this title to construct a railway from Nasoga gulf or other convenient point near the mouth of Naas river, B.C., to Telegraph creek or Glenora, and from near Dease lake to Atlin City. (Jan., pg. 19.)

Bedford Tramway Co.—At the recent session of the Nova Scotia Legislature an act was passed consolidating the various acts relating to the Bedford Electric Co. and changing its name to the Bedford Tramway Co. The incorporators are M. E. Keefe, Alex. McNeil, G. E. Boak, H. J. Crowe, W. A. Temple and C. F. Tremaine. (Oct., 1901, pg. 306.)

Beersville Ry. Co.—C. G. Polleys, Hon. C. W. Robinson, J. Bedford, R. F. Kinnear, Moncton, N.B., I. Purdy and H. Von Hagen, New York, were incorporated at the recent session of the New Brunswick Legislature under this title to construct a railway from Adamsville, on the I.C.R., to the Imperial Coal Co.'s mines at Beersville, and from the mine to Kingsville, about 16 miles. The act will not come into operation until after the Government has been satisfied as to the extent of the coalfield. In the railway subsidies act provision is made for subsidizing the line to the extent of \$2,500 a mile. (See Imperial Coal Co., April, pg. 119.)

Berlin, Waterloo, Wellesley and Georgian Bay Ry. Co.—J. G. Reiner, A. E. Ratz, E. E. Ratz, W. B. West, John Hill, Wellesley, Ont.; C. Hagedorn, Berlin, Ont.; D. Hibner, R. Roschman, Waterloo, Ont., and F. Clare, Preston, Ont., are applying at the current session of the Dominion Parliament for the incorporation of a company with this title to construct a railway from Berlin to Collingwood, with branches from Mount Forest to Owen Sound and to Wiarton. (Mar., pg. 93.)

Brockville, Westport and Sault Ste. Marie Ry.—The applications of W. H. Comstock and others to acquire this railway and extend it to Sault Ste. Marie, Ont., under the title of the Brockville and Northwestern Ry.; of C. F. Hohn and others to have the title of the line vested in them, they having bought the line at a recent sale, and with all the powers of the original incorporators, and to incorporate them under the title of the Brockville and Sault Ste. Marie Ry. Co.; and of James Cooper and others, creditors of the B., W. and S.S.M. Ry., incorporating them as the Brockville and Western Ry. Co., were considered by the Railway Committee of the House of Commons as one order. The three bills were referred to a sub-committee with a view of harmonizing the different interests. (May, pg. 145.)

Bruce Mines and Algoma Ry.—The application of this Company to the Ontario Legislature for an act giving it power to extend its line from its present terminus at Rock Lake, Ont., to James bay, was opposed before the Railway Committee of the Legislature, and power was given only to extend the line to the C.P.R. transcontinental line. The Company is also making application to the Dominion Parliament to extend to James bay. (April, pg. 119.)

Canadian Yukon Western Ry.—J. A. Christie, W. H. Moore and F. A. McHugh are applicants at the current session of the Dominion Parliament for the incorporation of a company under the above name, and

also as the Stewart River Development Co. Among the works proposed to be constructed is a railway from Dawson, along the Yukon river valley, to the International boundary. (Dawson to B.C. boundary, Jan., pg. 20.)

Cape Breton Ry.—Construction is reported to have been recommenced on the uncompleted portion of the line between Point Tupper and St. Peter's, N.S. Jay Downer is Chief Engineer. (May, pg. 145.)

Central Ry. of New Brunswick.—E. G. Evans, Superintendent, recently reported that all the trestle bridges on the line had been rebuilt within the past two years, and that a number of bridges would be replaced with steel structures in the near future. New ties were being laid on portions of the line, and considerable ballasting was being done. (Aug., 1902, pg. 263.)

Central Trunk Ry.—An unsigned notice appears in the official Gazette, that application will be made at the current session of the Ontario Legislature for an act incorporating a company to operate a railway between the Ottawa river, in Prescott county, and with power to purchase or lease the Brockville, Westport and Sault Ste. Marie Ry., or any other railway holding charters to construct any portion of the proposed line.

Chatham, Wallaceburg and Lake Erie Ry. Co. (Electric)—J. N. McKendry, H. L. Dunn, A. D. Brooks, F. Denton, Toronto, are applying at the current session of the Dominion Parliament for an act incorporating a company under this title to construct an electric railway to connect Chatham, Wallaceburg, Dresden, Petrolia, Rondeau and Blenheim, Ont. (Mar., pg. 95.)

Detroit River Bridge.—E. Burton, chairman of the U.S. Congress committee on rivers and harbors, in a recent interview said he was opposed to the erection of a single pier in the Detroit river, and thinks there would not be any difficulty in spanning the river with a bridge giving 135 ft. clear space over the water. A single span across the river would remove every objection the vessel-men could offer. (May, pg. 147.)

Duluth, Virginia and Rainy Lake Ry.—A press report states that this line will be completed to Pelican lake, about 45 miles south of Koochiching, on Rainy River, Minn., opposite Fort Frances, Ont., during June. (May, pg. 147.)

Edmonton St. Ry. (Electric).—The application of the E. S. Ry. Co., which is really the town council, for an act authorizing the construction of electric railways anywhere within 50 miles of Edmonton, Alta., was defeated in the Railway Committee of the House of Commons. The Company has a perpetual franchise to construct electric railways within 10 miles of Edmonton. (May, pg. 147.)

Flathead Valley Ry. Co.—W. F. Teetzel, D. La Bau and P. E. Wilson are applying at the current session of the B.C. Legislature for the incorporation of a company with this title to construct a railway from the Flathead river, near the International boundary, to the Crow's Nest Pass line of the C.P.R., near Elko, B.C. (Mar., pg. 95.)

Fraser River Bridge.—We were advised, May 8, that the contractors for the substructure of this bridge at New Westminster for the B.C. Government, expected to have their work completed early in June. The erection of the superstructure by the Dominion Bridge Co., Montreal, will be proceeded with at once. (May, pg. 147.)

Gaspe and Western Ry. Co.—G. T. Smith, of Quebec; C. A. Gauvreau, M.P., Isle Verte, Que.; J. A. Ross, M.P., Ste. Flavie Station, Que.; O. E. Talbot, M.P., St. Michel de Bellechasse, Que., and E. W. Tobin, Brompton Falls, Que., are applying at the current

session of the Dominion Parliament for the incorporation of a company with this title to construct a railway from Fraserville, near Riviere du Loup, on the I.C.R., to Gaspe Basin. (Feb., pg. 39.)

Grand Valley Ry.—The section of the line between Brantford and Paris, Ont., was placed in operation May 13. (Feb., pg. 39.)

Guelph and Georgian Bay Ry. Co. G. B. Ryan, J. M. Duff, A. F. H. Jones, R. L. Torrance, J. H. Hamilton, J. M. Taylor, J. E. MacElderry, J. Kennedy, N. Higginbotham, J. Keleher, A. Stewart, H. Gummer, J. I. MacIntosh, J. W. Lyon, H. McMillan and D. Guthrie, Guelph, Ont., are applying at the current session of the Dominion Parliament for an act incorporating a company to construct a railway, to be operated by steam or electricity, from Guelph to Owen Sound, with branch lines to Meaford and Orangeville. The Company intends endeavoring to acquire the Guelph Electric Ry., and in connection with it to construct a line to Erin and Hespler, via Puslinch lake. (Mar., pg. 95.)

Gunflint and Lake Superior Ry.—D. J. Arpin, Grand Rapids, Minn., is President, and W. Scott, Secretary, of a company which has secured incorporation in Minnesota, to construct a railway from near Gunflint, on the International boundary, to Lake Superior. Gunflint Narrows is the point on the Canadian boundary to which the Duluth extension of the Canadian Northern Ry. extends, 86

miles from Port Arthur, Ont., and which line was originally planned to extend to Duluth, Minn.

Halifax Electric Tramway.—A special committee of the Halifax city council has been investigating the powers of the council in regard to the Tramway Co., and as a result suggests that legislation should be sought to require the Company to make a deposit with the city as security for the proper up-keep of the road-bed, and to compel it to live up to an approved time-table.

The new plant, which is in progress of installation at the power house, is expected to be ready for operation by Nov. 1. Of the additional power which will be generated, 300 h.p. will be utilized for the street railway purposes. The enlarged power house is 110 ft. by 126 ft., the addition being 45 ft. by 110 ft. (Nov., 1902, pg. 382.)

Halifax and Southwestern Ry.—The surveyed route, from a junction with the I.C.R. at Bedford, N.S., to the head of St. Margaret's bay, via English Corner, has been abandoned, and instead the line will be constructed from the I.C.R. at the west end of the yard in Halifax in a direct line to the head of St. Margaret's bay, via the Chain lakes. The route as surveyed between the head of St. Margaret's bay and Mahone has not been altered, and nothing definite has been settled with regard to the route from Bridgewater to Barrington Passage. The Halifax city council has voted to pay the amount of the land

damages from Dutch Village to the city, less \$5,000 voted by the rural municipality. A contract for grading from Mahone Bay, on the Central Ry. of N.S., owned by MacKenzie, Mann & Co., easterly for 40 miles, has been let to Angus Sinclair, and press reports state that McDonald & Mitchell, of Williamstown, Ont., have a contract between Halifax and Chester. Labor is reported to be scarce. Contracts have been let for ties for 60 miles of line, and we are advised that it is expected to get track laid this year between Halifax and Mahone, and from Bridgewater to Liverpool; this, with the 13 miles of the Central Ry., which will be used between Mahone and Bridgewater, will give Liverpool a direct line into Halifax. (May, pg. 147.)

Halifax and Yarmouth Ry.—We are advised that the work of ballasting, etc., on the line as required by the Provincial Engineer, has been completed, and passenger trains have been operated for some time over the whole line from Yarmouth to Barrington Passage, N.S., 50 miles. (May, pg. 147.)

Hamilton and Caledonia Ry. (Electric).—In connection with the Company's application to the Ontario Legislature for an exten-

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Kensington	" 20th	" 25th	" 29th
Dominion	" 27th	Aug. 1st	Sept. 5th
Southwark	July 4th	" 8th	" 12th

BOSTON TO LIVERPOOL

Commonwealth	July 2nd	July 30th	August 27th
New England	" 9th	Aug. 6th	Sept. 3rd
Mayflower	" 16th	" 13th	" 10th
Columbus	" 23rd	" 20th	" 17th

BOSTON TO MEDITERRANEAN

Vancouver	June 6th	July 18th	August 29th
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Plant, etc.

sion of time to construct its line from Hamilton to Selkirk, Ont., it was stated that construction was expected to be commenced this year. The Railway Committee struck out the clause giving the Company permission to operate its cars on Sundays. Permission is also asked to change the name of the Company to the Hamilton, Caledonia and Lake Erie Ry. Co. (Mar., pg. 95.)

Hamilton, Grimsby and Beamsville Electric Ry.—The new power plant at Grimsby has been tested and found satisfactory. Application is being made by the village council at the current session of the Ontario Legislature for an act ratifying the agreement made changing the route of the line through the village. (May, pg. 147.)

Huron, Erie and Buffalo Ry. Co.—J. H. Walker, A. Leslie, J. H. Coburn, J. H. Simpson and F. W. Stevens, of Detroit, Mich., are making application at the current session of the Dominion Parliament for the incorporation of a company with this title, to construct a railway from near St. Thomas to the Niagara river, or to a point on Lake Erie near Fort Erie, Ont., and from near St. Thomas to near Sarnia, Ont. Power is also sought to acquire bridges across the Niagara or the St. Clair rivers with their connecting railways. The applicants are connected with the Pere Marquette Rd., which recently acquired the Lake Erie and Detroit River Ry. The lines proposed to be constructed are to give a short route between Sarnia and St. Thomas, and to extend the line to the International boundary. Representatives of the Pere Marquette Rd. are interested in an application to construct a bridge over the St. Clair river at Amherstburg, Ont. The L. E. and D. R. Ry. has a charter to construct a line from St. Thomas to the Niagara river, but it is bound to run through Simcoe and other points. (See Detroit river bridge, April, pg. 119; Lake Erie and Detroit River Ry., Mar., pg. 95.)

Huron and Ontario Ry.—The application for the revival of this charter at the current session of the Dominion Parliament is being made by A. McK. Cameron, of Meaford, Ont.; A. E. Scanlon, Bradford, Ont.; H. J. Rolston, Shelburne, Ont.; W. Laidlaw, Durham, Ont.; H. H. Miller, Hanover, Ont.; M. McNamara, A. B. Kline, D. Robertson, Walkerton, Ont.; J. G. Murdock, Lucknow, Ont.; A. Malcolm, Kincardine, Ont.; J. M. Roberts, Goderich, Ont.; J. Humbertson, Ripley, Ont.; J. Gillies, Teeswater, Ont.; R. J. Sproule, Flesherton, Ont. (Feb., pg. 39.)

Intercolonial Ry.—The double-tracking of the line between Richmond and Rockingham, N.S., 2.45 miles, is necessitated by the heavy traffic on the line between Halifax and Windsor Jct. Tenders are under consideration. The excavation will be partly in rock and partly in earth, and stone wall protection will be required along Bedford basin. The curvature will be reduced, and the line considerably improved, particularly at Birch Cove, where there is now a sharp curve. The track will be laid with 80-lb. rails, and the work is required to be finished by Aug. 31. The work of double-tracking will likely be continued to Windsor Jct., 13.25 miles from Richmond.

A deputation from Sydney Mines waited on the Minister of Railways May 9 in reference to the projected extension of the line to that town, and reports that Mr. Blair stated that the Government would construct the line.

A new car shop is being erected at Moncton, N.B., by Rhodes, Curry & Co., of Amherst, N.S.

The branch line from Riviere Ouelle Station to St. Denis wharf, Que., is reported to be about ready for the rails, and track is expected to be laid and the line in operation for the tourist travel this year.

Tenders are being considered for the erec-

tion of baggage and express rooms at Levis, Que.

We were recently advised that no definite decision had been reached in regard to a projected extension of the Rimouski branch to Father Point wharf, Que. (May, pg. 147.)

Irondale, Bancroft and Ottawa Ry.—During the current year a large number of new ties will be put in, some trestles will be filled, curves straightened out, the decks of the wooden bridges removed, and a considerable quantity of ballasting will be done on this line, which extends from Kinmount Jct., on the G.T.R. Haliburton line, to Bancroft, 47½ miles. It is also proposed to construct 2½ miles of additional line, making altogether 50 miles. The station now at the end of the track will be removed to the new terminal, which will be 2½ miles from Bancroft village, a short distance further than the old one was. We are advised that a preliminary survey will also be made for the continuation of the line to a junction with the Canada Atlantic Ry. at Renfrew. (Nov., 1902, pg. 383.)

Kent Northern Extension Ry.—The incorporators of the Kent Northern Ry. (see under Railway, Finance, etc.), were also given an act of incorporation at the last session of the New Brunswick Legislature as the K.N.E. Ry. Co., and were authorized to construct a line from Kent Jct., on the I.C.R., to Chipman, where a junction could be effected with the Central Ry. of N.B., and the line of the New Brunswick Ry. and Coal Co., about 40 miles. The act will come into force by proclamation, after a deposit of \$20,000 has been made by the company. The principal traffic anticipated will be coal.

Kent Northern Ry.—An act incorporating J. Jardine, R. Phinney, W. D. Carter, G. Robertson and T. Murray under this title, was passed at the recent session of the New Brunswick Legislature. The company has a capital of \$40,000, and power is given to issue bonds to the extent of \$2,500 a mile. The line was sold under foreclosure in Dec., 1902, for \$60,900 cash to T. Ritchie, who, with his colleagues, has since expended \$15,000 upon improvements; and was subsequently sold to the present incorporators. The line is 27 miles long and extends from Kent Jct., on the I.C.R., to Richibucto. (Feb., pg. 41.)

Kingston and Frontenac Ry. Co.—Application is being made at the current session of the Ontario Legislature for the incorporation of a company with this title to construct a railway from Kingston to Loughborough Bridge, with a branch to the Kingston and Pembroke Ry., with power to maintain steamers on all navigable waters touched by the line. McGivern & Haydon, Ottawa, are the solicitors.

Klondike Mines Ry.—Application is being made at the current session of the Dominion Parliament for an act extending the time for the commencement and completion of this line. (May, pg. 149.)

Kootenay, Cariboo and Pacific Ry. Co.—The applicants for the incorporation of this Company when before the Railway Committee of the House of Commons abandoned the proposal to construct a line from Fort Steele to Port Simpson, with branches, and decided to ask power to construct a line from Fort Steele to a junction with a line through the Yellowhead Pass. (May, pg. 149.)

Kootenay Central Ry. Co.—R. L. T. Galbraith, J. A. Harvey, H. Watt, J. B. Langley, W. R. Ross, Fort Steele, B.C., and J. H. King, Cranbrook, B.C., are applying at the current session of the B.C. Legislature for incorporation under this title to construct a railway from Fort Steele via Elko, to the International boundary, and from Fort Steele to Golden. Application is being made to the Dominion Parliament for an extension of time

within which the line authorized by the act of 1901 may be constructed. (Mar., pg. 95.)

Kootenay Development and Tramways Co.—C. M. Buck, E. H. Loyhed, Faribault, Minn., and H. S. Judson, St. Paul, Minn., are applying at the current session of the B.C. Legislature for an act incorporating a company with this title to construct tramways in West Kootenay district, and particularly from Kootenay lake to the headquarters of Duncan river, and from Kaslo to the headquarters of the south fork of Kaslo creek, and from Crawford bay, on Kootenay lake, to the headquarters of Crawford creek.

Lake Erie and Detroit River Ry.—Press reports state that the directors, after the annual meeting of shareholders, decided to proceed with the construction of the line from St. Thomas to the Niagara river and push it to completion as rapidly as possible. We are, however, advised by an officer that he does not believe the reports to be authentic. (Mar., pg. 95.) See also Huron, Erie and Buffalo Ry., this page.

Lake Superior, Long Lake and Albany River Ry.—A deputation representing the promoters, who were accompanied by G. Ashlin of London, Eng., waited on the Ontario Government recently and asked for a land grant of 7,000 acres a mile for the construction of 210 miles of railway from Peninsula harbor, Lake Superior, to deep water on the Albany river. Mr. Ashlin, the Globe report of the interview states, explained that he represented two steamship companies of Liverpool and Glasgow, who had a score or more of idle steamships that were rusting away and doing nothing. These steamship companies desired to put their steamers on the Hudson's bay route, to bring settlers into Canada, and to take back grain. He also claimed that the line could be constructed in 18 months, and announced that the promoters of the enterprise also had a charter to construct a line from Hudson's bay to the Pacific coast, via Edmonton, with a branch via Calgary to the International boundary, which could be completed in five years. The Premier declined to commit himself to any approval of the project, and asked for a full statement of the company's intentions and desires. The Ontario Legislature in 1902 voted \$3,000 a mile for the first 10 miles from Peninsula harbor. (April, 1902, pg. 141.)

Lindsay, Bobcaygeon and Pontypool Ry.—H. W. D. Armstrong has been appointed Chief Engineer, and has opened an office at Lindsay, Ont. A survey party is in the field locating the line from Burketon, 46 miles from Toronto on the C.P.R. Montreal-Toronto line, to Lindsay, and another party is engaged locating the line from Lindsay to Bobcaygeon. The total length of the line is about 41 miles, of which 25 miles lies between Lindsay and Burketon. Among the engineers engaged on the surveys are A. N. Bruce, H. W. Gzowski, W. H. Brunel, and F. Lambert.

The L., B. and P. Ry. Co. was incorporated under a Dominion Act in 1890 to construct a railway from Burketon or Pontypool on the C.P.R. line to Lindsay, and thence to Bobcaygeon. In 1899 the Dominion Parliament voted a subsidy of \$3,200 a mile for 40 miles, and in 1902 the Ontario Legislature granted a subsidy of \$3,000 a mile for 19 miles between Lindsay and Bobcaygeon. In 1900 local municipalities voted the following subsidies: Harvey township, \$3,000; Bobcaygeon, \$11,000; Verulam township, \$14,000; Opps township, \$15,000; Lindsay, \$25,000; Manvers township, \$5,000; total \$73,000. W. T. Boyd, of Bobcaygeon, is President of the company, and T. A. Stewart, of Lindsay, is Secretary. The other directors are also local men. There is little doubt that fresh blood has recently been infused into the company, but no information as to who is providing the money is available. The line when built will

be operated by the C.P.R., and it is probable that that company, or people closely allied with it, are behind the present movement. Clarke, Bowes & Swabey, solicitors, Toronto, are acting for the persons interested, and have made the arrangements for the surveys, etc. (April, pg. 119.)

London and Port Stanley Ry.—See under Railway Finance, Meetings, etc.

Manitoulin and North Shore Ry.—We are advised that it is not anticipated there will be any construction on this line during the current year.

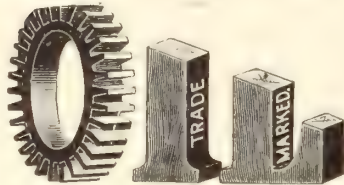
Manitoba Lines.—J. J. Hill, President of

the Great Northern Ry., U.S., and also of the Northern Securities Co., the latter of which was recently declared an illegal corporation, holding the control of the Northern Pacific Ry. as well as of the G.N. Ry., was interviewed recently in Montreal, and stated that neither the G.N. Ry. nor the N.P. Ry. proposed building into Manitoba, nor were these companies interested in any projects to construct lines in Manitoba. The projected lines referred to are those which the Avondale-Brandon Central Ry. Co. (May, pg. 145) and the Midland Ry. of Manitoba (May, pg. 149), are authorized to build.

Midland Ry. of Nova Scotia.—See North Colchester Ry.

Minneapolis, Superior, St. Paul and Winnipeg Ry.—U.S. press reports state that the promoters have arranged the financial part of their undertaking, and will commence construction at an early date. (Aug., 1902, pg. 205.)

Monkland Mills Spur.—The Fergus, Ont., town council recently considered propositions for putting in a spur to Monkland Mills. The C.P.R. estimated the cost at \$7,500, and would allow the G.T.R. equal rights as to operation; while the G.T.R. put in an esti-



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MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1902, gives the following statistics for the year:

ACRES.	CROPS.	
	YIELD.	TOTAL.
Wheat.....2,039,940	26. bus.	53,077,267 bus.
Oats.....725,060	47.5 "	34,478,160 "
Barley.....329,790	35.9 "	11,848,422 "
Potatoes.....22,005	157. "	3,459,325 "

STOCK.

Number of stock in the Province, July 1, 1902:
Horses.....146,591 Sheep.....20,518
Cattle.....282,343 Pigs.....95,598
Value of Dairy Products.....\$26,314

15,000 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1902—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS.—For sale by the Provincial Government. Over 1,000,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

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The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free, Circulars as they are published from month to month.

The Local Agent is asked to note Cheap Rates to all the North West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. December folder is a good one. Get it!

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H. PARRY,
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mate at \$11,000, afterwards reduced to \$7,500, but desired exclusive rights for operation. The cost of right-of-way is being considered by the council.

Montreal-Longueuil Bridge Co.—W. H. Dandurand, S. T. Willett, J. Cochrane, P. Galibert, O. Faucher, R. Forget and J. Perreault are applying at the current session of the Dominion Parliament for the incorporation of a company to construct a bridge across the St. Lawrence river between Montreal and Longueuil, and to provide railway terminals in Montreal. The bridge proposed to be constructed would have a clear headway of 150 ft. for 800 ft., and the company asks power to charge tolls. (April, pg. 119.)

Montreal Northern Ry.—At the last session of the Quebec Legislature an act was passed incorporating a company to construct a railway from Ste. Agathe, on the C.P.R., Labelle branch, 64 miles from Montreal, south-westerly to Lachute in the Ottawa valley. The length of the projected line is 52 miles, and it will cross the Montford and Gatineau line of the Great Northern Ry. at Chapleau. Contracts are reported to have been let for the construction this year of 25 miles of line from Ste. Agathe. Lawton Work, of New York, is President of the Company, and is interested in the pulp and paper mills at Ste. Agathe. A line has been constructed connecting these mills with the C.P.R. line.

Montreal and Southern Counties Ry. (Electric)—A charter for the construction of this line was granted by the Quebec Legislature in 1897, and covers practically the whole of the south shore of the St. Lawrence and the Eastern townships. A. J. de B. Corribeau, who has been active in promoting the project, says capital has been secured in the U.S., and that construction will be commenced this year on lines from Montreal to Valleyfield, and Montreal to St. Johns, Que. (Feb., pg. 47.)

Montreal Subway Co.—A return recently presented to the Dominion Parliament gave information regarding the plans of the projected tunnel under the St. Lawrence. The plans were deposited with the Minister of Railways in Jan., and showed that the tunnel would extend from Montreal south, in an open cut to a portal, thence by tunnel under the shallow channel south of St. Helen's island, and under the easterly end of St. Helen's island to the north shore of the river near Monarque st., continuing to St. Louis st., where it is intended to have yards. The total length of the tunnel would be 21,368 ft. (Feb., pg. 43.)

Montreal Terminal Ry. (Electric).—Construction has been in progress for some time on the concrete arch under the C.P.R. embankment at Forsyth st., and it is expected that the city and suburban tracks of the M. T. Ry. will be connected at an early date, and the service placed in operation. (May, pg. 150.)

Morrissey, Fernie and Michel Ry. Co.—C. A. Holland, G. H. Barnard and B. G. Goward, of Victoria, B.C., are applying at the current session of the B.C. Legislature for the incorporation of a company with this title to construct a railway from Fernie, via the Elk river valley to Morrissey creek, thence to Lodgepole creek and Flathead river to the International boundary; and from Fernie to 28 miles north of Michel creek. (Jan., pg. 21.)

New Brunswick Coal and Ry. Co.—Recent press reports stated that the line from Chipman to Newcastle, 15 miles, would be ready for operation early in June. In the act of incorporation it was provided that as a condition of the Government guaranteeing the bonds it might insist on the Company taking over the Central Ry., from Norton to Gibson, 45 miles. An option on the C. Ry. was obtained for \$180,000. At the current session

of the New Brunswick Legislature an act was passed authorizing the Government to guarantee principal and interest of \$200,000 of 1st mortgage bonds on the line of the C.N. Ry. This will enable the N.B.C. and Ry. Co. to take over the line. (May, pg. 150.)

Niagara, Queenston and St. Catharines Electric Ry. Co.—J. N. McKendry, H. L. Dunn, A. D. Brooks, F. Denton, of Toronto, are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to construct electric railways connecting Niagara, Queenston and St. Catharines, Ont. (April, pg. 121.)

North Colchester Ry.—We were recently advised that with the possibility of some slight modifications the line had practically been determined on, and will take the Waugh's river route from Earlton, N.S., striking the I.C.R. about a mile east of Tatamagouche station, and running thence to the narrows of Barrachois harbor. This line would in reality be an extension of the Midland Ry. of Nova Scotia. (Feb., pg. 45.)

Nova Scotia Eastern Ry.—The plans at present prepared are for a line turning from Dartmouth easterly to Chezzetcook, north to Middle Musquodoboit, running along the bank of the Musquodoboit river north-easterly to Upper Stewiacke, and from there to Tralfagar. Then it will run east along the St. Mary's river to Melrose and down to Guysboro, through Boyleston and Manchester and up to Mulgrave. A branch is projected from below Melrose down to Isaac's and Country harbor, and another starting at Melrose will run north-west to New Glasgow, where it will join the I.C.R. A bridge across the narrows of Halifax harbor is being planned, so that an entrance will be obtained into Halifax. It is not likely that construction will be commenced on the railway before 1904. (May, pg. 150.)

Orford Mountain Ry.—Construction work is reported to have been recommenced on the extension of the line from Kingsbury to Windsor Mills, Que., about 7½ miles. (Feb., pg. 45.)

Ottawa, Northern and Western Ry.—Tracklaying has been commenced, and on May 9 we were advised that two miles had been laid, and that track was being laid at the rate of about ¾ of a mile a day. Grading was being proceeded with between Blue Sea lake and Maniwaki, about eight miles. It is expected that the extension from Gracefield to Maniwaki will be completed by Sept. (May, pg. 150.)

Ottawa, Ont., Electric Ry.—Press reports state that the city council will give permission for the double-tracking of the line, if the company will agree to provide rails of a standard acceptable to the City Engineer. (Feb., pg. 45.)

Owen Sound.—Two propositions have been made for the construction of an electric railway at Owen Sound, Ont. W. Robinson, said to be representing Philadelphia, Pa., people, says a line in Owen Sound would cost about \$200,000, and suggests that a branch line to Meaford should be constructed in connection with it. A New York syndicate has also before it a project for an electric line in the town, and will probably make a proposition at an early date.

Pacific, Northern and Eastern Ry. Co.—J. Irving, H. F. Bullen, F. B. Gregory, of Victoria, B.C., are applying at the current session of the B.C. Legislature for the incorporation of a company with this title to construct a railway from Hazelton to the northern boundary of B.C., near Teslin lake, and from Hazelton to the eastern boundary of the province via Peace river or Pine river pass. (Jan. pg. 23.)

Pere Marquette International Bridge Co.—J. A. Walker, A. Leslie, J. H. Coburn, of

Walkerville, Ont., and J. W. Stevens, Detroit, Mich., are applying at the current session of the Dominion Parliament for the incorporation of a company with this title to construct a bridge over the Detroit river at Amherstburg, Ont.

The Portland Rolling Mills Co. was, at the last session of the New Brunswick Legislature, given power to construct a railway from its works to a junction with the St. John Bridge and Ry. Extension Co.'s line.

Prince Edward Island Ry.—We were recently advised that the grading on the Murray Harbor branch was practically completed. Ballasting the 20 miles on which track was laid in 1902, will be gone on with, and on its completion tracklaying will be resumed. It is expected that the line will be completed this year to Southport, the southern end of the bridge over the Hillsboro river now under construction. It is expected that tenders will be asked for placing sidings and erecting stations on the branch during the summer. (May, pg. 151.)

Quatsino Ry. Co.—W. M. le P. Trench, Sidney, B.C., W. C. Spicer, H. Croft, C. A. Bury, Victoria, B.C., are applying at the current session of the B.C. Legislature for an act incorporating a company with this title to construct a railway from Hardy bay or Fort Rupert to the west or Rupert arm of Quatsino sound. (Mar., pg. 95.)

Reid Newfoundland Co.'s Ry.—A roundhouse is in progress of construction at the west end station in St. John's, and a new freight shed is projected.

We were advised April 27 that no decision had been reached relative to the construction of a spur line to a talc deposit at Holyrood. St. John's papers of later dates report that surveys were being made for a spur line from Duff's station to the deposits; and that "the work of constructing a railway from the mine to the coast, where a pier will be built for shipping purposes, is now being started." (May, pg. 151.)

In connection with the application of the residents of the district that the projected extension of the line from Carbonear to Heart's Content, Nfld., be proceeded with, the Premier recently stated in the Newfoundland Legislature that according to the terms of the agreement of 1898 between the Government and R. G. Reid, it was provided that so soon as he proved to the government that a line was necessary in any district, and that the business interests of the public warranted it, the government had to approve of such a line, and pay for it, as built by him. In 1902 Mr. Reid showed that two trains daily to Carbonear did not pay, and it was therefore out of the question that an extension to Heart's Content would pay. A motion to construct the line was defeated by 17 to 4. (May, pg. 146.)

Restigouche and Western Ry.—The Nova Scotia Legislature has passed an act authorizing a Provincial guarantee of bonds to the extent of \$5,000 a mile for 50 miles, such bonds not to exceed one-third of the cost of the line. It is provided that the line shall be first-class in every respect, the bridges to be of steel with stone abutments, and the track to be laid with 60 lb. rails.

T. Malcolm, of Edmundston, N.B., recently stated that men were at work all the winter getting out ties and timber, and that surveyors were completing surveys and plans. The line will traverse the table lands of the centre of the province, and to reach these, 900 ft. above the Grog Brook valley, a gradient of from ½ to 1% a mile will be required. There will be one tunnel of 450 ft. long about eight miles from Grog Brook, and probably other tunnels will be found necessary. (Feb., pg. 46.)

St. John, N.B., Ry.—Application has been made to the local councils to extend the St.

John Ry. from the Suspension bridge to Carleton and through Lancaster, and the matter is under consideration. (Feb., pg. 47.)

St. John's (Nfld.) Street Ry. It is proposed to operate electric cars on the storage battery system between Fort William and Octagon, and press reports state that the cars may be run as far as Topsail. (Feb., pg. 47.)

St. John Valley and Riviere du Loup Ry.—At the last session of the New Brunswick Legislature an act was passed reviving the charter of this company, and authorizing it to commence construction within three years. (Nov., 1902, pg. 386.)

Sandwich, Windsor and Amherstburg Ry.—The through service between Windsor and Amherstburg, Ont., was commenced May 9. The run is 17½ miles, and the extension just completed is 12½ miles long. (May, pg. 151.)

Southern Central Pacific Ry. Co.—Application is being made at the current session of

the Dominion Parliament by E. F. B. Johnston, J. Miller, Toronto; W. H. Moore, Winnipeg, and J. B. MacLennan, Cleveland, O., for the incorporation of a company with this title, to construct a railway from Vancouver northerly and easterly, via Kootenay pass, to Old Man river, and thence to Churchill river, Hudson's bay. (Feb., pg. 47.)

The Standard Coal and Ry. Co., which was incorporated at the last session of the Nova Scotia Legislature, includes among its stockholders: Sir M. Daly, R. E. Harris, Halifax; H. J. Logan, M.P., Amherst, N.S.; C. P. Harris, Moncton, N.B.; H. Gillespie, J. F. Outhit, P. A. Holmes and W. H. Magee, Parrsboro, N.S. A meeting was held in Parrsboro, May 8, for organization. The proposed capital is \$3,000,000, and operations are expected to be commenced at once. The Company has power to construct a railway from Athol to Parrsboro, thence to Truro, with a branch to tap the River Herbert mines.

Temiskaming and Northern Ontario Ry.—We were advised on May 11 that the location surveys had reached the 74th mile going north, touching Lake Temagamingue at mileage 72, and had completed 20 miles going south from New Liskeard, Ont. There is a link of about 18 miles to be completed between the two points, on which work is in progress. It was estimated that 40 miles of the grade would be ready for tracklaying by June 1, and that tracklaying would be commenced immediately thereafter. Owing to the satisfactory progress made with the grading, it is expected that 70 miles of track will be laid by the end of the season, or 10 miles more than the contract calls for. In order to provide for this extra track an additional order for 1,500 tons of steel rails has been placed.

Terminal facilities will be provided for the line at North Bay, under agreement with the C.P.R. That Company's yard and station will be used, and its officials will do all the

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A beautiful new hotel just built by the Canadian Pacific Ry., in connection with their new passenger station. The building occupies an entire block and the style of architecture is that of the Chateau period of the French Renaissance. The hotel faces the Viger Gardens, and is thoroughly up-to-date in all its appointments. American tourists will find the Place Viger a most delightful hotel home.

RATES: \$3 UPWARDS.

Special arrangements with large parties and those making prolonged stays. For further information address, Manager, Place Viger Hotel, Montreal.

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Capital paid up - - 2,923,866
Reserve - - 2,485,288

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Manager

switching, making up of trains, tracing of engines, handling of passengers and freight, issuance of tickets, cleaning of cars, supplying of coal and water, and all the other work pertaining to the terminal. In view of the possible cancellation of the G.T.R. running rights over the C.P.R. from Nipissing Jct. to North Bay, the Commissioners have secured running rights between the same points, which will give the T. and N. O. Ry. a connection with the G.T.R. as well as with the C.P.R. (May, pg. 152.)

Tillsonburg, Lake Erie and Pacific Ry.—The proposed extension from Ingersoll to Georgian Bay is under consideration by the different municipalities, and those on the suggested route having a terminal at Collingwood are favorable to voting subsidies. The Company recently applied to the Owen Sound Board of Trade asking what subsidy would be voted to secure the terminal there, but the application was not considered. A large deputation recently waited on the Ottawa Government to urge the granting of a subsidy. (April, pg. 122.)

Toronto and Hamilton Ry. (Electric).—The applicants at the current session of the Dominion Parliament for an act incorporating a company to construct an electric railway between Toronto and Hamilton, are: C. L. Denison, F. A. Drake, J. T. Gilmour, J. B. Kilgour and T. H. Markey. The Company asks power to make arrangements with the suburban railways at Toronto, Hamilton and St. Catharines, and to connect up the same, so as to provide a through route from Toronto to Buffalo. (Mar., pg. 95.)

Toronto and Mimico Ry. (Electric).—Survey parties have been at work for some time between Long Branch and Oakville, Ont., in connection with the proposed extension of this line. At Oakville a connection would be made with the Hamilton Radial Ry., which now extends to a short distance east of Burlington, and which it is proposed to extend to Oakville. (April, pg. 122.)

Vancouver, Victoria and Eastern Ry.—Press reports state that construction would be started early in May between Curlew and Greenwood, B.C., on the main line, and on the 24-mile spur line from Grand Forks to Phoenix. (May, pg. 152.)

Vancouver, Westminster, Northern and Yukon Ry.—Press reports state that work has been commenced, clearing the right-of-way between Vancouver and New Westminster, B.C. (Feb., pg. 49.) See also Victoria Terminal Ry. and Ferry Co.

Victoria Terminal Ry. and Ferry Co.—We are advised that the line on the mainland, between Port Guichon and Cloverdale, B.C., 17 miles, was completed April 25. At Port Guichon, wharves and slips have been provided from which the ferry steamer Victorian runs to Sidney, on Vancouver Island. The Victorian is large enough to carry eight or nine cars. It is intended to construct a branch from some point on the line between Cloverdale and Port Guichon, not yet determined on, to Liverpool, on the Fraser river, where, upon completion of the Fraser river bridge, connection will be made with the Vancouver, Westminster, Northern and Yukon Ry. to Vancouver. (May, pg. 152.)

Winnipeg Electric St. Ry.—The work of double tracking the line to River park was expected to be completed by May 30. (May, pg. 153.)

W. H. Kelson, General Storekeeper, C.P.R., Montreal, writes: "I consider the RAILWAY AND SHIPPING WORLD a very valuable publication."

The International Association of Ticket Agents' convention will be held in Salt Lake City, Utah, Sept. 10 to 12 inclusive.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease
July \$3,246,620.51	\$2,070,909.25	\$1,175,711.25	\$79,844.32+
Aug. 3,554,184.56	2,191,283.11	1,362,901.46	57,269.36+
Sept. 3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+
Oct. 4,127,402.07	2,511,267.44	1,616,134.63	149,095.41+
Nov. 3,976,068.87	2,417,828.63	1,558,240.24	117,362.10+
Dec. 3,959,146.15	2,286,704.31	1,672,441.84	103,750.33+
Jan. 3,148,455.27	2,231,684.50	916,770.77	96,309.97+
Feb. 2,827,294.65	2,084,553.96	742,740.69	68,380.01+
Mar. 3,615,752.57	2,357,188.11	1,258,564.46	203,649.50+

\$30,106,406.07 \$20,392,146.23 \$11,714,259.84 \$933,683.78+
Approximate earnings for April, \$3,763,000, against \$3,229,000 for April, 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Mar., \$226,352.41; net earnings, \$87,795.26, against \$201,020.79 gross and \$71,023.17 net for Mar., 1902. Net earnings for nine months ended Mar. 31, \$742,364.00, against \$711,415.24 for same period, 1901-02. Approximate earnings for April \$215,190, against \$241,797 for April, 1902.

MINERAL RANGE RY.—Approximate earnings for April, \$45,960, against \$61,852 for April, 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Mar., \$562,734.74; net earnings, \$278,492.46, against \$450,346.88 gross and \$207,733.85 net for Mar., 1902. Net earnings for nine months ended Mar. 31, \$2,733,256.83, against \$2,511,086.75 for same period 1901-2. Approximate earnings for April, \$533,452, against \$469,293 for April, 1902.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.
	1902-03	1901-02	1902-03
July...	155,344.93	49,089.96	\$562,876.50
Aug...	130,723.83	50,747.82	\$473,064.85
Sept...	145,535.83	60,060.46	542,811.11
Oct...	270,686.23	150,572.96	952,645.35
Nov...	146,687.83	151,922.89	598,788.99
Dec...	577,382.61	132,151.16	1,683,289.45
Jan...	102,581.29	109,846.99	428,611.21
Feb...	183,554.82	78,039.43	749,235.13
Mar...	184,139.22	101,029.22	782,968.76
April...	207,344.12	231,127.11	884,432.24
2,113,910.71	\$1,114,588.00		\$7,654,871.50
			\$5,532,108.46

2,113,910.71 \$1,114,588.00 \$7,654,871.59 \$3,532,198.46

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase.	Decrease
Jan.....	\$2634,200	\$2,278,978	\$355,222	....
Feb.....	2,432,661	2,018,026	414,735	....
Mar.....	2,967,408	2,537,873	429,535	....
April.....	2,787,054	2,436,756	350,298	....

\$10,821,323 \$9,272,533 \$1,548,790

The following figures are supplied from the London, Eng., office:

GRAND TRUNK RY.

Revenue for Mar.:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$490,200	\$425,100	\$65,100	....
Working expenses	327,100	261,000	66,100	....
Net profit....	\$163,100	\$164,100	....	\$1,000

Aggregate from Jan. 1 to Mar. 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$1,327,700	\$1,128,200	\$199,500	....
Working expenses	963,100	761,000	202,100	....
Net profit....	\$264,600	\$267,200	....	\$2,600

GRAND TRUNK WESTERN RY.

Revenue for Mar.:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$98,000	\$78,500	\$19,500	....
Working expenses	85,100	64,000	21,100	....
Net profit....	\$12,900	\$14,500	....	\$1,600

Aggregate from Jan. 1 to Mar. 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$262,200	\$221,900	\$40,300	....
Working expenses	238,200	189,100	49,100	....
Net profit....	\$24,000	\$32,800	....	\$8,800

DETROIT, GRAND HAVEN AND MILWAUKEE RY.

Revenue for Mar.:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$21,500	\$17,800	\$3,700	....
Working expenses	14,600	12,600	2,000	....
Net profit....	\$6,900	\$5,200	\$1,700	....

Aggregate from Jan. 1 to Mar. 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$60,700	\$54,100	\$6,600	....
Working expenses	44,000	37,900	6,100	....
Net profit....	\$16,700	\$16,200	\$500	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1, to April 30:

	1903.	1902.	Increase.	Decrease.
Grand Trunk....	\$1,784,876	\$1,521,800	\$263,076	....
G. T. Western....	360,050	309,294	50,756	....
D. G. H. & M....	78,632	71,219	7,413	....
Total.....	\$2,223,558	\$1,905,313	\$318,245	....

American Association of General Baggage Agents.

The Secretary, J. E. Quick, Toronto, has issued the programme for the 23rd annual convention to be held at the Royal Muskoka Hotel, Lake Rosseau, Ont., on June 17.

The following committees are to report at this meeting: On a practical and theoretical design of a baggage way-bill. To confer with transfer companies with a view of having rate for transfer of corpse made same as for passengers. On revision of uniform telegraph code. On charge made by transfer companies for more than one piece of baggage transferred on one transfer coupon. On uniform excess baggage checks. Committee at late conference with committees from National Health Officers' Association and National Association of Funeral Directors.

The following subjects have also been suggested for discussion and action at this meeting: The simplifying of instructions and the use of C.O.D. checks. Further efforts to induce all lines to adopt uniform excess and C.O.D. checks. The failure of many lines to carry out the requirements of resolution regarding advising terminal lines in case of C.O.D. check being sent to such line. Failure of lines to comply with resolution regarding showing junction points on interline checks. Forwarding of baggage not properly routed. Best form of interline wagon transfer contracts. Dating trip reports, way-bills, etc., the date trains leave terminals. Should lines place B.O. tags on baggage beyond their own line. Checking of dogs to Pacific Coast points. Should transfer companies be allowed to check baggage through to destination from hotels and residences. Carriers legal right to compel owners of baggage to expose contents when checking baggage. Liability for loss of baggage held at junction points and improperly routed.

Railway Mechanical Associations.—At a special meeting of the executive committee of the American Railway Master Mechanics' Association and the Master Car Builders' Association, at Buffalo May 11, to consider a request from the proprietor of the Grand Hotel, Mackinac, that he be relieved of his contract to accommodate the members, as he had greatly underestimated the numbers that would attend the conventions, it was decided to hold the convention at Saratoga, N.Y., the Master Mechanics June 24-26, and the Master Car Builders June 29-July 1.

PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Steam Shovels	
James Cooper.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
Steel	
James Cooper.....	Montreal.
B. J. Coglin & Co.....	Montreal.
Wm. Jessop & Sons.....	Sheffield, Eng.
Rice Lewis & Son.....	Toronto.
Steel Buildings	
Dominion Bridge Co.....	Montreal.
Steel for Springs	
James Hutton & Co.....	Montreal.
Steel Plate	
Jas. W. Pyke & Co.....	Montreal.
Steel Tires	
B. J. Coglin & Co.....	Montreal.
James Hutton & Co.....	Montreal.
Latrobe Steel Co.....	Philadelphia, Pa.
Jas. W. Pyke & Co.....	Montreal.
Structural Metal Work	
Dominion Bridge Co.....	Montreal.
Locomotive and Machine Co. of Montreal	
Jas. W. Pyke & Co.....	Montreal.
Switches	
Montreal Steel Co.....	Montreal.
Switch Lamps	
The Hiram L. Piper Co.....	Montreal.
The N. L. Piper Railway Supply Co.....	Toronto.
Switch Ropes	
The B. Greening Co.....	Hamilton, Ont.
Switch Targets	
Acton Burrows Co.....	Toronto.
Tanks and Tank Fixtures	
Ontario Wind Engine and Pump Co.....	Toronto.
Telegraph and Telephone Office Signs	
Acton Burrows Co.....	Toronto.
Tie Plates	
B. J. Coglin & Co.....	Montreal.
Tobacco and Cigars	
The Hudson's Bay Company.....	
Toilet Paper	
The Hudson's Bay Company.....	
Tools	
Rice Lewis & Son.....	Toronto.
Track Jacks	
James Cooper.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
A. O. Norton.....	Coaticook, Que.
Track Tools	
Canada Switch and Spring Co.....	Montreal.
James Cooper.....	Montreal.
Rice Lewis & Son.....	Toronto.
W. H. C. Mussen & Co.....	Montreal.
Tramway Equipment	
James Cooper.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
J. J. Gartshore.....	Toronto.
Trucks (Electric Car)	
Baldwin Locomotive Works.....	Philadelphia, Pa.
Montreal Steel Co.....	Montreal.
Trucks (Warehouse and Express)	
Rice Lewis & Son.....	Toronto.
Turntables	
Dominion Bridge Co.....	Montreal.
Varnishes	
McCaskill, Dougall & Co.....	Montreal.
Vessels	
Polson Iron Works.....	Toronto.
Waste	
B. J. Coglin & Co.....	Montreal.
Rice Lewis & Son.....	Toronto.
N. L. Piper Ry. Supply Co.....	Toronto.
The Queen City Oil Co.....	Toronto.
Wheelbarrows	
James Cooper.....	Montreal.
Rice Lewis & Son.....	Toronto.
Windmills	
Ontario Wind Engine and Pump Co.....	Toronto.
Window Blinds	
The Hudson's Bay Company.....	
Wines and Liquors	
The Hudson's Bay Company.....	
Wire & Wire Rope	
Dominion Wire Rope Co.....	Montreal.
The B. Greening Co.....	Hamilton, Ont.
Rice Lewis & Son.....	Toronto.
W. H. C. Mussen & Co.....	Montreal.
The Wire and Cable Co.....	Montreal.
Wire, Brass and Steel	
Dominion Wire Manufacturing Co.....	Montreal.
Wire Cloth	
The B. Greening Co.....	Hamilton, Ont.

Wire, Copper

Dominion Wire Manufacturing Co..... Montreal.
E. F. Phillips Electrical Works, Ltd..... Montreal.

Wire, Electric

Dominion Wire Manufacturing Co..... Montreal.
E. F. Phillips Electrical Works, Ltd..... Montreal.
The Wire and Cable Co..... Montreal.

Wire Goods

Dominion Wire Manufacturing Co..... Montreal.

Wire, Insulated Copper

E. F. Phillips Electrical Works, Ltd..... Montreal.

Wire, Telegraph and Telephone

Dominion Wire Manufacturing Co..... Montreal.
E. F. Phillips Electrical Works, Ltd..... Montreal.
The Wire and Cable Co..... Montreal.

Wire, Transmission and Trolley

Dominion Wire Manufacturing Co..... Montreal.

Wood Screws

Dominion Wire Manufacturing Co..... Montreal.

Yachts

Polson Iron Works..... Toronto.

The Lehigh Valley Rd.'s excellent monthly, The Black Diamond Express, has an article on the Grand Trunk route, in its last issue, in which it mixes itself up thusly:—"The Grand Trunk Ry. and Sir John Van Horne are almost synonymous terms. Except for the 'handle' to his name Sir John is an American of the Americans, shrewd, alert, progressive, large minded, far seeing. No one in America knows better than he the value of men, no one is better skilled in the character-reading art, which can single out the man from the mass; and it is a matter of pride that so many Americans have been drafted into the service."

The report of the revenue and expenditure for Ontario for 1902 shows that the tax on corporations produced the following amounts from transportation companies: sixteen railway companies (including G.T.R. \$13,275.95 and C.P.R. \$12,204.78), \$33,592.81; seventeen street railways \$7,022.24, of which \$4,748 was paid by the Toronto Ry. Co.; three express companies, \$4,400; the Pullman Palace Car Co., \$1,124.09; four telegraph companies, \$1,292.24; and two telephone companies, \$6,375.00.

The new customs regulation relating to baggage from the U.S. went into force May 1. All baggage will now be examined at the boundary, except when checked in bond to Calgary, Alta.; Halifax, N.S.; Hamilton, Ont.; London, Ont.; Ottawa, Ont.; Toronto; St. John, N.B.; Sherbrooke, Que.; Quebec; Levis, Que.; Point Levis, Que.; Winnipeg, Man.; Victoria, B.C.; Vancouver, B.C., and, during the tourist season only, to Banff, Alta.; Gravenhurst, Ont., and Muskoka Wharf, Ont.

The Great Northwestern and the Western Union Telegraph Companies have strung a new no. 11 copper wire between Montreal and New York. The portion between Montreal and Whitehall, N.Y., was strung by the G.N.W.T. Co., which operates in New York State north of a line drawn from Oswego to Whitehall. From Whitehall to New York the wire was strung by the W.U.T. Co.

The Reid Newfoundland Co.'s passenger department has issued a well-illustrated pamphlet descriptive of the fishing and shooting resorts in Newfoundland and Labrador, reached by its railway and steamers.

A new edition of the list of lights and fog signals in the Dominion, corrected to April 1, has been published by the Department of Marine. Copies can be obtained by mariners on application.

The C.P.R. is employing English in preference to Italian laborers on its line. Recently 300 English laborers were distributed at points between Winnipeg and Vancouver for track work.

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Accident Insurance Canadian Ry. Accident Ins. Co. Ottawa, Ont. Travelers' Insurance Co. Montreal.	Door Signs Acton Burrows Co. Toronto.	Matches The Hudson's Bay Company
Aerated Waters E. L. Drewry Winnipeg.	Dry Goods The Hudson's Bay Company	Milepost Numbers Acton Burrows Co. Toronto.
Air Brakes & Fittings Westinghouse Mfg. Co. Hamilton, Ont.	Electric Car Route Signs Acton Burrows Co. Toronto.	Mohair The Hudson's Bay Company
Ales E. L. Drewry Winnipeg.	Electric Cranes Dominion Bridge Co. Montreal W. H. C. Mussen & Co. Montreal.	Nails, Wire Dominion Wire Manufacturing Co. Montreal.
Anchors Rice Lewis & Son Toronto.	Enameled Iron Signs Acton Burrows Co. Toronto.	Numbers Acton Burrows Co. Toronto.
Axles James Hutton & Co. Montreal Jas. W. Pyke & Co. Montreal. Rhodes, Curry & Co. Amherst, N.S.	Engines, Stationary & Marine Polson Iron Works Toronto.	Oakum Rice Lewis & Son Toronto. The Hudson's Bay Company
Babbitt Rice Lewis & Son Toronto.	Engraving Acton Burrows Co. Toronto. Toronto Engraving Co. Toronto.	Oils Galena-Signal Oil Co., Franklin, Pa., & Toronto. The Queen City Oil Company Toronto.
Blankets & Bedding The Hudson's Bay Company	Expanded Metal Expanded Metal and Fire-Proofing Co. Toronto.	Office Signs Acton Burrows Co. Toronto.
Block & Tackle Dominion Wire Rope Co. Montreal. Rice Lewis & Son Toronto.	Express Office Signs Acton Burrows Co. Toronto.	Packing The N. L. Piper Railway Supply Co. Toronto.
Boat Fittings & Hardware Rice Lewis & Son Toronto.	Fencing Canadian Steel and Wire Co. Hamilton, Ont. Dominion Wire Manufacturing Co. Montreal. Page Wire Fence Co. Walkerville, Ont.	Pinch Bars The Hiram L. Piper Co. Montreal. The N. L. Piper Railway Supply Co. Toronto.
Boiler Covering Mica Boiler Covering Co. Montreal.	Fire-Proofing Expanded Metal and Fire-Proofing Co. Toronto.	Pipe Covering Mica Boiler Covering Co. Montreal.
Boilers Polson Iron Works Toronto.	Flags Rice Lewis & Son Toronto. The Hudson's Bay Company	Plushes The Hudson's Bay Company
Boiler Tubes B. J. Coghlin & Co. Montreal. Jas. W. Pyke & Co. Montreal.	Flour The Hudson's Bay Company The Ogilvie Flour Mills Co. Montreal.	Porter E. L. Drewry Winnipeg.
Bolsters Simplex Railway Appliance Co. Montreal.	Foghorns Rice Lewis & Son Toronto.	Portland Cement Rice Lewis & Son Toronto.
Bolts Rice Lewis & Son Toronto.	Gates Page Wire Fence Co. Walkerville, Ont.	Printing The Hunter, Rose Co. Toronto. The Mail Job Printing Company Toronto.
Brake Beams Simplex Railway Appliance Co. Montreal.	General Supplies The Hudson's Bay Company	Pumps Rice Lewis & Son Toronto.
Brass and Copper Cloth The B. Greening Co. Hamilton, Ont.	Grain Elevators John S. Metcalfe Co. Chicago, Ill.	Railway Supplies The N. L. Piper Railway Supply Co. Toronto.
Brass Castings St. Thomas Brass Co. St. Thomas, Ont.	Groceries The Hudson's Bay Company	Rail Joints Montreal Rolling Mills Co. Montreal.
Bridge Numbers Acton Burrows Co. Toronto.	Hardware Rice Lewis & Son Toronto. The Hudson's Bay Company	Rails (New) James Cooper Montreal. Drummond, McCall & Co. Montreal. J. J. Gartshore Toronto.
Bridges Dominion Bridge Co. Montreal.	Headlights N. L. Piper Railway Supply Co. Toronto.	Rails (for relaying) James Cooper Montreal. J. J. Gartshore Toronto. T. A. Morrison & Co. Montreal. W. H. C. Mussen & Co. Montreal. Rice Lewis & Son Toronto. Jas. W. Pyke & Co. Montreal.
Buoy Lighting Safety Car Heating and Lighting Co., New York	Hose Rice Lewis & Son Toronto.	Roof Trusses Dominion Bridge Co. Montreal.
Cables, Electric and Feeder E. F. Phillips Electrical Works, Ltd., Montreal. The Wire and Cable Co. Montreal.	Illustrations Acton Burrows Co. Toronto.	Rope Rice Lewis & Son Toronto. The Hudson's Bay Company
Car Couplers Latrobe Steel and Coupler Co., Philadelphia, Pa.	Interlocking Plants Montreal Steel Co. Montreal.	Semaphore Arms Acton Burrows Co. Toronto.
Car Heating Safety Car Heating and Lighting Co., New York	Iron Rice Lewis & Son Toronto.	Semaphores The Hiram L. Piper Co. Montreal. The N. L. Piper Railway Supply Co. Toronto.
Car Jacks James Cooper Montreal. W. H. C. Mussen & Co. Montreal.	Iron Signs Acton Burrows Co. Toronto.	Shafting Rice Lewis & Son Toronto.
Car Lighting Safety Car Heating and Lighting Co., New York	Japans McCaskill, Dougall & Co. Montreal.	Shipbuilders' Tools & Supplies Rice Lewis & Son Toronto.
Carpets The Hudson's Bay Company	Journal Bearings Jas. W. Pyke & Co. Montreal. St. Thomas Brass Co. St. Thomas, Ont.	Ship Lamps The Hiram L. Piper Co. Montreal. The N. L. Piper Railway Supply Co. Toronto.
Cars Rhodes, Curry & Co. Amherst, N.S.	Lager Beer, &c. E. L. Drewry Winnipeg.	Ships Polson Iron Works Toronto.
Car Wheels Jas. W. Pyke & Co. Montreal. Rhodes, Curry & Co. Amherst, N.S.	Lamps & Lanterns The Hudson's Bay Company Rice Lewis & Son Toronto. The Hiram L. Piper Co. Montreal. N. L. Piper Railway Supply Co. Toronto.	Shovels James Cooper Montreal. The Hudson's Bay Company Rice Lewis & Son Toronto.
Castings Montreal Steel Co. Montreal. Rhodes, Curry & Co. Amherst, N.S.	Launches Polson Iron Works Toronto.	Side Bearings Simplex Railway Appliance Co. Montreal.
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Chains Rice Lewis & Son Toronto.	Lights, Contractors and Wrecking James Cooper Montreal. W. H. C. Mussen & Co. Montreal.	Signals The Hiram L. Piper Co. Montreal. N. L. Piper Railway Supply Co. Toronto.
Coal Haulage Ropes The B. Greening Co. Hamilton, Ont.	Linoleum and Floor Coverings The Hudson's Bay Company	Signs Acton Burrows Co. Toronto.
Concrete Mixers W. H. C. Mussen & Co. Montreal.	Locomotives (Compressed Air) American Locomotive Co. New York, N.Y. Baldwin Locomotive Works Philadelphia, Pa. Locomotive and Machine Co. of Montreal	Snow Ploughs Rhodes, Curry & Co. Amherst, N.S.
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Crossing Gates The N. L. Piper Railway Supply Co. Toronto.		Steamboats Polson Iron Works Toronto.
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Cuts Acton Burrows Co. Toronto.		Steam Couplers Safety Car Heating and Lighting Co., New York
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(Continued on preceding page.)

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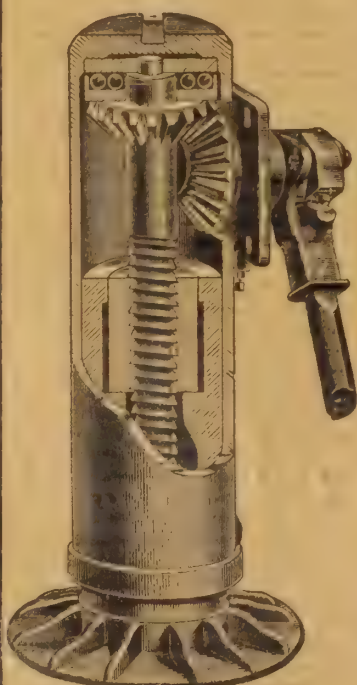
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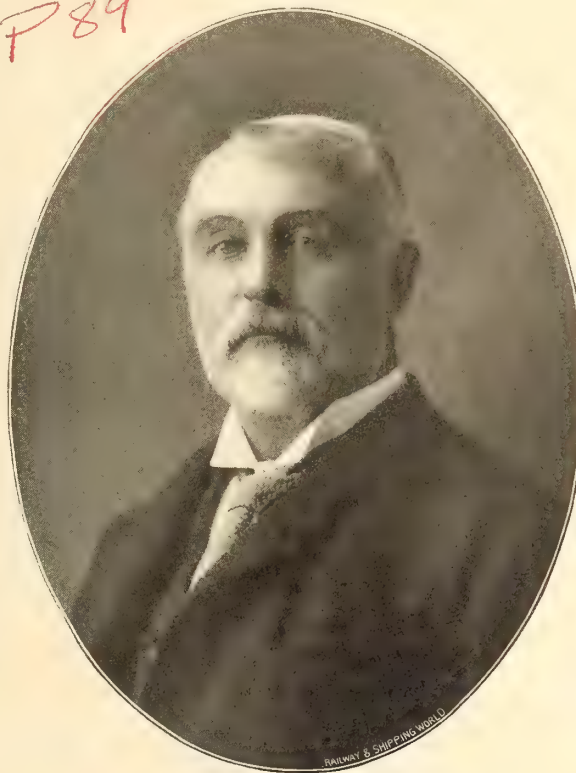
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Algoma Central and Hudson Bay Ry.

This line, when completed, will connect Sault Ste. Marie, Ont., with the transcontinental line of the C.P.R. at White River, Ont., about 250 miles east of Port Arthur. Its length, exclusive of branches, will be 235 miles. The most important of the branch lines is the Michipicoten branch, which has been in operation for about three years. In the main the line traverses a rugged, broken country, full of lakes, swift flowing streams, and bold rock hills; a country well-timbered, and holding out promise of great mineral wealth. The lakes and streams are full of fish, game and wild fowl abound—in fact, the country is a regular sportsman's paradise. For the first nine miles after leaving Sault Ste. Marie the road goes through a fine and well-settled agricultural district. There is no heavy work on the first 19 miles going north, both curves and gradients are easy. A summit is reached at about the 18th mile, being 568 ft. above the initial point, or 1,176 ft. above sea level. With the exception of the Bellevue trestle at mileage 19 the bridging is light; this structure is one of the heaviest bridges on the line. It is a timber trestle 1,064 ft. long, and at the greatest depth from rail to ground is 98 ft. From here the line drops into the valley of the Goulais river. At mileage 30½ it crosses this river on a pin connected steel truss and a 50 ft. deck girder bridge on concrete abutments. The road after crossing Goulais river, ascends the valley of Spruce creek, crossing this fine trout stream four times on steel girders. The gradients and curvature are heavy in this valley, 1.5% and 10°. Spruce or Achigan creek is the outlet of Achigan lake, which in turn forms the outlet of Bass lake. The two lakes connect at the Narrows, which is crossed on a pile bridge of 36 bents. After overcoming the summit at mileage 47½ the line drops with easy gradients down into the valley of the south branch of the Chippewa river. From the 56-59th mile the road skirts around the shore of Trout lake, a most beautiful body of water, clear as crystal, alive with fish, and in a country teeming with large game. Then the road again begins to rise to overcome the summit between this lake and the north branch of the Chippewa river. In climbing from Trout lake the work is very heavy, as the line passes along steep side hills and precipitous bluffs; however, the gradients, curves and bridging are comparatively light. The grade ascends to mileage 63¾, then falls for six miles to the crossing of the north branch of the Chippewa river. From there the line runs northwesterly,

passing through a very rough, broken country; it follows with a great deal of curvature the course of Mongoose creek to the Batchewana river. This stream will be crossed by two 80 ft. deck girders. The next section embraces the divide between the Batchewana and Montreal rivers. The summit is reached by using curvature to develop distance, and using the maximum gradient of 1½%. The work here is very heavy, being nearly all rock. The Montreal river at mileage 92 necessitates a steel viaduct 1,520 ft. long and 135 ft. above

broken country which extends from east to west, which it was found impossible to get through and get down into the Agawa river, the only outlet to the country. At mileage 110 the line reaches the valley of the Agawa. This valley is a narrow gorge, from 300 to 400 ft. wide, with abrupt cliffs rising 300 to 400 ft. on either side. In many places streams come tumbling down over these cliffs, forming beautiful cascades. This valley is followed until the canyon of the Agawa is reached. This canyon is short, has vertical walls, and narrows up to 100 ft. After leaving it the line again traverses the Agawa valley; as it gradually widens the work becomes light, more earth, sand and hard pan being met with. The line crosses the river six times on pile bridges. The gradients are now all light. The road continues up the valley, making the last crossing at the 132nd mile. It then leaves this river, and for four miles crosses a fairly broken country to Sand lake; from here to the Michipicoten river the work is light. This river will be crossed on a bridge consisting of two 80' and one 40' deck girders on concrete piers. Then the road descends with easy gradients and curves to the valley of Hawk river. At mileage 165 it turns westward and connects at mileage 171 with the Josephine branch, which in turn connects with the Michipicoten branch. From mileage 173 the main line continues generally westerly through a very broken country, full of lakes and high rock bluffs; here the work will be heavy. At mileage 205 the line turns sharply to the north and follows the course of a series of connected lakes which are the source of White river. It then follows this stream, connecting with the C.P.R. at White River station. The road is graded from Sault Ste. Marie to its junction with the Josephine branch; 85 and 80 lb. rails are laid to the mileage 64, and it is the intention to lay track this season to mileage 92. As the road has received Government subsidies it conforms to the Government specification, which insures a stable, substantial and safe, permanent way.



T. H. WHITE, M. CAN. SOC. C.E.
Chief Engineer, Halifax and Southwestern Railway.

the level of the river, at its greatest height. The viaduct is located on a 8° and 6° compound curve on a level grade. It crosses the river where the channel is divided by a rocky island. As contemplated, it will consist of 15 steel towers, the highest being 111 ft., concrete abutments on each end, the superstructure being ten 60', five 75', and one 81' spans of deck girders. Boller and Hodge, of New York city, are the Consulting Engineers. After crossing the river the road runs westerly until it is within about three miles of Lake Superior. This is owing to a high ridge of

The Mica Boiler Covering Co., Ltd., reports that its business showed a great improvement in both Canada and England last year. Arrangements have been nearly completed for manufacturing mica pipe and boiler coverings at Widnes, Lancashire, Eng., and it is probable that the company will manufacture in France in the very near future.

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NEXT ANNUAL MEETING of the Grand Council in
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The Transportation Commission.

Although it was officially announced that
Sir Wm. Van Horne, Montreal, J. Bertram,
Toronto, and H. Kennedy, Quebec, had been
appointed a Royal Commission to investigate
the transportation problem in Canada, it does
not appear that the commissioners have ac-
cepted office, or been vested with any pow-
ers, or that they have had any consultation
with the Government on the question. Sir
W. Van Horne, it was announced June 23rd,
had declined to act, as also had H. Kennedy.
It is understood that J. Bertram has ac-
cepted, and that W. Fry, of Quebec had
been appointed in place of H. Kennedy. Two
secretaries were appointed by the Depart-
ment. The matter was recently mentioned
in the House of Commons, and the report of
the committee of the Privy Council to the
Governor-General, dated May 19, has since
been issued as a sessional paper. The report
sets out that the Minister of Public Works
had been considering questions affecting the
transportation of Canadian products to the

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markets of the world through and by Cana-
dian ports, with a view of placing the Cana-
dian producer in a position to compete suc-
cessfully with the producers and exporters of
other countries. The question involves the
consideration of a number of points, including
the conditions of original shipment; the stor-
age requirements of lake, river and ocean
ports; the harbor facilities of the inland
lakes, rivers, and Atlantic and Pacific ports;
the conditions with regard to the navigation
of the St. Lawrence river for ocean steamers,
and the enlargement or improved operation
of the canal system; the question of competi-
tion by U.S. vessels from Lake Superior ports,
and the diversion of Canadian products to
Boston, Portland, New York or other U.S.
ports. The commissioners named were direct-
ed to make such enquiry along the lines
indicated; obtaining such evidence and in-
formation, and making such reports and re-
commendations as in their opinion the exigen-
cies of the case may require.

Since the above was put in type an Ot-
tawa despatch, dated June 23, states that
Sir Wm. Van Horne has declined to act on
the commission, as also has H. Kennedy,
of Quebec, but that J. Bertram would accept
appointment. W. Fry, of Quebec, has been
appointed to act in place of H. Kennedy.

RAILWAY FINANCE, MEETINGS, ETC.

Atlantic and Lake Superior Ry. Co.—An action has been instituted on the part of the company by C. N. Armstrong to recover \$1,575,000 from the Dominion Government for loss of credit, etc., owing to the failure of the Government to carry out an alleged agreement to guarantee the company's bonds. The matters in dispute date back prior to 1895.

The court has reserved judgment in the action of the A. and L.S. Ry. vs. Heney & Smith. (June, pg. 189.)

British Columbia Electric Ry. Co.—Earnings and expenses for April:—

GROSS EARNINGS.	1902.	1903.	Increase or Decrease.
Railway—Vancouver division	\$9,434	\$12,022	\$2,588+
Victoria	7,943	8,520	577+
Westminster	7,783	9,395	1,612+
Lighting—Vancouver division	11,116	15,533	4,417+
Victoria	5,490	7,121	1,631+
	41,766	52,591	10,825+
Less working expenses	29,947	32,951	3,004+
	11,819	19,640	7,821+
Renewal funds	3,458	4,222	764+
Net income	8,361	15,418	7,057+
Aggregate gross earnings, July			
1, 1902, to April 30, 1903	\$48,879	559,780	72,901+
Aggregate net earnings, July			
1, 1902, to April 30, 1903	\$158,890	\$184,253	\$25,363+

The Co. has issued from its London, Eng., office a statement showing the operating profits for the 12 months ended Mar. 31, in comparison with those of previous years. The reports are now made up to June 30 in each year, and the statement is issued for the information of shareholders. The following figures are extracted from the statement:

	1902-3.	1901-2
Operating profits	£51,928	£45,299
London office and general charges	3,500	3,408
Debt interest	11,142	11,250
Preference interest and dividend	10,750	10,000
Balance	26,536	20,641
Debt and share capital	717,600	650,000

Up to June 30, 1902, £5,882 had been written off for preliminary expenses, and £33,225 had been transferred to the various reserve and renewal accounts. The £3,500 for London office and general charges is an estimate, and the £717,600 of debt and share capital does not include £175,000 of Vancouver Power Co. debentures. (June, pg. 189.)

Brockville, Westport and Sault Ste. Marie Ry. Co.—The accounts of W. H. Coie, Receiver, have been passed by the Master at Brockville, and the receivership has terminated. The line is being operated by the reorganization syndicate, which is applying to the Dominion Parliament for incorporation as the Brockville, Westport and Northwestern Ry., Westport having been added at the desire of residents on the line. (May, pg. 153.)

Calgary and Edmonton Ry.—Net earnings for April \$42,616.11, against \$33,909.55 for April, 1902, making for four months ended April 30, \$100,748.07, against \$125,052.76 for same period 1902.

A meeting of shareholders has been called for July 6 in Toronto, to ratify the lease of the line to the C.P.R. Co. for 99 years. (June, pg. 189.)

Canadian Northern Ry.—Gross earnings:—

	1902-03.	1901-02.	Increase.
July	\$132,300	\$ 87,200	\$45,100
Aug.	130,900	97,000	33,900
Sept.	209,300	103,300	106,000
Oct.	190,200	120,610	69,590
Nov.	259,800	119,142	140,658
Dec.	203,300	129,918	73,382
Jan.	154,700	102,067	52,633
Feb.	147,825	109,524	38,301
Mar.	174,700	116,900	57,800
April	198,125	109,924	88,201
May	240,600	119,300	121,300
	\$2,040,750	\$1,214,885	\$825,865

Working expenses for Mar., \$157,600; net earnings, \$40,525, against \$24,750 for Mar., 1902; net earnings for 10 months, \$595,366, against \$422,697 for same period, 1901-02.

Press reports recently quoted D. D. Mann as stating that the profits of the C.N. Ry. for the past year, over and above all working expenses and interest charges were \$600,000.

The proposal of the Dominion Government to guarantee the bonds of the company for the purpose of securing the extension of the line to Edmonton, Alta., and towards Prince Albert, Sask., has been approved by the House of Commons. The resolution passed sets forth that the aid is in the nature of a guarantee of the principle and interest of the first mortgage bonds and debentures of the company to the extent of \$13,000 a mile of the line, interest on the bonds to be at the rate of 3% a year, the principal to be payable in 50 years. The bonds are to be secured by mortgage forming a first charge upon the railway. With respect to that portion of the line from the end of the Gilbert Plains branch to the westerly boundary of Manitoba, a distance not exceeding 65 miles, the mortgage shall be a first charge to the extent of only \$10,000 a mile, but shall also rank next after the charges already created, but the mortgage shall rank next after a first charge of \$13,000 a mile on that part of the Prince Albert branch. The mortgage shall also rank after all existing charges on all lines now in operation and other properties owned by the company. The Governor-General-in-Council shall approve of all securities given by the company, but upon the guarantee being signed on behalf of the Government it shall become liable for payment of the principal and interest of the securities and interest guaranteed, such payments to be a charge upon the Consolidated Revenue Fund. All rates upon the railway shall be under the control of the Government or such railway commission as may be appointed; also the Government or the commission may have power to grant to other roads running rights over any parts of the line aided upon such terms as may be considered just. It shall also be unlawful for the C.N.R. to sell or lease any part of its lines to the C.P.R., or make any agreement with that road for the pooling of rates, except with the consent of the Government. Any monies paid by the Government, under its guarantee, shall be accounted as a discharge of the Government's liability, but shall not relieve the C.N.R. from its securities, but the Government shall to the extent of such payment, be placed in the same position as all other holders of the securities of the road.

Chateaugay and Northern Ry.—The lease of the charter and all rights, property, etc., of this company to the Great Northern Ry. of Canada for 99 years, was ratified at a meeting of the shareholders of the G.N. Ry. Co. held in Quebec June 2, and the lease signed. (June, pg. 189.)

Chignecto Marine Ry. Co.—The annual application for compensation to the bondholders of this company, which expended \$4,000,000 upon an endeavor to construct a railway to carry vessels across the narrow strip of land separating the head of the Bay of Fundy from Northumberland strait, came before the House of Commons June 10. The Finance Minister stated that the Government might be prepared to do something as an act of grace, but not as a right. Press reports state that it is understood that a vote of \$500,000 will be asked for in full satisfaction of all claims, the Government getting control of the right of way, etc., which the company had obtained. A report from London, Eng., states that after the deduction of liabilities, the proposed vote will mean a return to the security holders of £14 5s. od. on each £100 of debenture stock; £7 2s. 6d. on each £100 of preference stock, and £1 8s. 6d. on each £100 of ordinary stock. (July, 1902, pg. 230.)

Columbia and Western Ry.—The special committee appointed by the B.C. Legislature to investigate the granting of an order-in-council dated Sept. 4, 1901, giving the company certain lands, has presented its report. The evidence given showed that there had been some dealings in connection with the matter, and the Attorney-General (D. M. Eberts) and the Commissioner of Lands and Works (W. C. Wells) were dismissed from office by the then Premier, Colonel Prior. The Committee reported that all the circumstances of the case justified the order-in-council cancelling the grant, so far as it related to the "deficiency blocks," in regard to which the allegations were made. (June, pg. 190.)

Dominion Atlantic Ry.—Gross earnings for May, \$69,300, against \$67,709 for May, 1902; making for five months ended May 31, \$284,900, against \$302,492.

Grand Trunk Ry.—The Minister of Finance recently stated in the House of Commons, in reply to a question, that at the time of Confederation the G.T.R. owed the Province of Canada \$25,607,393, which amount was taken over by the Dominion as an asset. This amount still stands on the balance sheet, no payment having been made on account of principal or interest by the G.T.R.

The receivership of the Detroit and Toledo Shore Line will be discharged July 1, when the line will be taken possession of by the G.T.R.

The G.T.R. Co.'s act authorizing the increase of the 4% guaranteed stock to £10,000,000 has passed the Senate, and on being assented to by the Governor-General will become law. (June, pg. 190.)

Hamilton Cataract Power, Light and Traction Co.—At the recent session of the Ontario Legislature an act was passed confirming the incorporation of this company under the Ontario Companies' Act, and the contracts made taking over the undertakings of the Hamilton Electric Light and Cataract Power Co., which owns the Hamilton Street Ry., the Hamilton Radial Electric Ry., and the Hamilton and Dundas St. Ry.

International Transit Co.—An act was passed at the last session of the Ontario Legislature authorizing the Lake Superior Power Co. to acquire the stock, property and assets of a number of the Clergue companies at Sault Ste. Marie, Ont., including the International Transit Co. This company operated under the Ontario Companies' Act until recently, when an act was passed by the Legislature confirming the letters patent.

London, Ont., Street Ry.—Gross earnings:

	1902-3.	1901-2.	Increase or Decrease.
Dec.	\$15,041.80	\$12,947.48	\$2,094.32+
Jan.	12,132.54	10,117.60	2,014.94+
Feb.	10,716.42	8,894.78	1,821.64+
Mar.	11,533.68	10,233.21	1,300.47+
Apr.	11,818.06	9,941.94	1,876.12+
May	13,144.76	12,233.68	911.08+
	\$74,387.26	\$64,368.69	\$10,018.57+

Manitoba Ry. Co.—Notice is given that a first mortgage dated June 1, 1903, from the Manitoba Ry. Co. to H. A. Fabian, of St. Paul, Minn., Railway Official Trustee, has been deposited with the Secretary of State at Ottawa. (June, pg. 191.)

Montreal St. Ry.—Earnings and expenses for May:—

	1903.	1902.	Increase. or Decrease.
Passenger earnings	\$170,777.14	\$173,901.58	\$ 3,124.44—
Miscellaneous earnings			
ings	2,209.48	4,506.57	2,297.09—
Total earnings	172,986.62	178,408.15	5,421.53—
Operating expenses	112,140.52	86,780.45	25,360.07+
Net earnings	60,846.10	91,627.70	30,781.60—
Fixed charges	20,613.74	18,672.42	1,941.32+
Surplus	40,232.36	72,955.28	32,722.92—
Expenses % of car earnings	65.66	49.90	

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturer of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

From Oct. 1, 1902, to April 30, 1903:

	1902-3.	1901-2.	Increase, or Decrease.
Passenger earnings.....	\$1,341,071.22	\$1,241,307.39	\$ 99,763.83+
Miscellaneous earnings.....	21,492.73	16,210.51	5,282.22+
Total earnings.....	1,362,563.95	1,257,517.90	105,046.05+
Operating expenses.....	872,073.07	766,237.91	105,835.16+
Net earnings.....	490,491.88	491,279.99	788.11-
Fixed charges.....	140,469.53	124,906.79	15,562.74+
Surplus.....	350,022.35	366,373.20	16,350.85-
Expenses % of car earnings..	65.03	61.73	

Interest on M. P. & I. Ry. Co.'s bonds owned by the Co. not included.

New Brunswick and Prince Edward Island Ry.—A syndicate, of which B. F. Pearson, of Halifax, N.S., is the moving spirit, has an option on this line, which extends from Sackville to Cape Tormentine, N.B., 36 miles. This line is one of those which the Prince Edward Island Ferry Co. seeks to purchase, in the event of an act of incorporation being given it at the current session of the Dominion Parliament. B. F. Pearson is one of the applicants for this charter.

Ottawa Valley Ry. Co.—At a special general meeting, held June 9, the following officers were elected: President, E. McMullen, Boston, Mass.; Vice-President, H. W. Raphael, Montreal; other directors, Hon. J. R. Thibaudeau, H. McLaren, Montreal; A. P. Stevens, Albany, N.Y.; T. A. Richardson, C. M. Thompson, New York. A resolution was passed authorizing the purchase of the Carillon and Grenville Ry., with the object of equipping it as an electric road in connection with the company's proposed lines. In connection with this meeting R. W. Shepherd, Managing Director of the C. and G. Ry., wrote to the daily press stating that he was instructed by his directors to state that no agreement of any kind whatever existed with the O. V. Ry. Co.

Pere Marquette Rd.—Press reports state that according to financial statements published, the P. M. Rd. is earning 10% on its common stock.

Port Arthur-Fort William Street Ry.—At the recent session of the Ontario Legislature a bill was passed confirming certain by-laws passed by the town council, which owns the street railway connecting Port Arthur and Fort William, Ont. One of these by-laws provides that 1% of the taxes shall be set aside to provide a sinking fund to retire the street railway bonds, but as the bonds had been issued on a 1½% sinking fund, the Legislature inserted a clause in the act that the alteration should not be made unless with the consent of two-thirds of the bondholders.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for April, \$15,017.77, against \$19,089.10 for April, 1902; making for five months \$21,879.41, against \$48,221.20 for same period 1901-02.

Quebec and Lake St. John Ry.—Gross earnings for April \$33,893, against \$33,122 for April, 1902; making for four months \$108,539, against \$108,483 for same period 1902.

At the annual meeting held recently the following were elected: President, G. LeMoine, Quebec; 1st Vice-President, W. Hanson, Montreal; 2nd Vice-President, J. T. Ross, Montreal; other directors: T. A. Pidington, E. Beaudet, Hon. P. Garneau, Hon. J. Tessier, H. J. Beemer, C. A. Hanson, E. Hanson and F. W. Ross. Hon. S. N. Parent, Hon. J. A. Gagne, and G. Tanguay, M.P.P., are directors ex-officio.

Quebec Central Ry.—Gross earnings for May, \$57,080.76; working expenses, \$40,784.61; net earnings, \$16,296.15, against \$14,609 net for May, 1902. Net earnings for five months ended May 31, \$62,038.24, against \$61,687.75 for same period 1902.

South Shore Ry. Co.—Hon. R. Prefontaine has secured a verdict of \$22,035.55 against this company. The cause of action arose out of the sale of the Montreal and Sorel Ry. to the S.S. Ry. Co., and the amount claimed was a balance due on shares. The proceedings were somewhat complicated, by reason of an intervention and a petition for improbation.

Temiscouata Ry.—Net earnings for April \$2,851, making for four months to April 30, net earnings of \$1,504.

Temiskaming and Northern Ontario Ry.—At the last session of the Ontario Legislature an act was passed providing for the financing of this railway, now under construction by the Ontario Government as a Provincial undertaking. Under the original act the commissioners were authorized to issue debentures pending the sale of lands, but as the security for these did not specifically include the railway, it was felt that they would be regarded as land grant securities. The present act provides for the issue of 40 year 4% bonds secured on the railway, and the 20,000 acres a mile set apart for its construction and equipment. The income of the commissioners is to be applied for the operation of the line, the payment of the interest on the bonds, and the provision of a sinking fund. Any surplus will be paid into the consolidated fund of the Province.

Toronto, Hamilton and Buffalo Ry.—Gross earnings for May, \$46,637, against \$38,969.70 for May, 1902; making for 12 months ended May 31, \$491,002.20, against \$465,369.07 for same period 1901-2.

Application will be made at the current session of the Dominion Parliament for an act to enable the company to issue second mortgage bonds, debentures or debenture stock, such securities to be subject in priority to the existing bonded debt.

Following is a statement of the results of operation of the Co. for the year ended May 31, 1903, with operating and maintenance expenses for May partly estimated:

Gross earnings.....	\$532,696.51
Operating and maintenance expenses.....	337,430.61
Leaving net earnings of	\$195,265.90
Interest on bonds.....	131,200.00
Net surplus.....	\$ 64,065.90

Of this net surplus \$40,604.65 was paid into the sinking fund, leaving a balance, which is carried to profit and loss, of \$23,461.25.

White Pass and Yukon Ry.—Gross earnings from July 1, 1902, to May 31, 1903, \$1,447,807.

Quebec Central Ry. Meeting.

At the annual meeting in London, Eng., May 27, the President, E. Dent, in moving the adoption of the report, said—The gross earnings for 1902 were \$669,341, an increase of \$46,625 over the previous year; the working expenses were \$467,621, an increase of \$45,456, and net earnings were \$201,720, an increase of \$1,169. The results of the operations for the year would have been most satisfactory had it not been for the fact that while the gross earnings were the largest in the company's history, the working expenses showed an abnormal increase, chiefly owing to the high price of coal, due to the prolonged coal strike, and to the increase in the wages of employees, which was general all over Canada and the U.S. The company had contracts for its coal supply, but the collieries were unable to fill the contracts, and the coal had to be bought wherever it could be obtained, so that, instead of \$3 or \$4 a ton being paid, sometimes as much as \$6 or \$7, and even \$10, was given. The net earnings for the first three or four months of the cur-

rent year had been to some extent affected by the same cause. Notwithstanding all this, however, after paying 2¼% interest on the 7% income bonds, against 1½% the previous year, and charging against revenue \$24,114 for necessary improvements to the property, and for compensation claims, etc., there remained \$8,745 to be carried forward. He thought this would be considered most satisfactory in all the circumstances. Most of them were, no doubt, aware that there had been a great increase in immigration to the Northwestern districts of Canada; but the districts covered by their railway did not appear to have benefited by this western "boom," but rather the reverse, for men were moving from the east to the western part of Canada, and this accounted for the present dearth of labor. After providing for interest on prior lien bonds, there remained, including what was brought forward from the previous year, \$119,217. The interest of 3% on the second debenture stock and the dividend of 2¼% on the income bonds would be equivalent to a dividend of 2½% on the old income bonds. So far as the board knew, there were no outstanding claims whatever. The number of passengers carried during 1902 was 219,685, an increase of 32,186 over the previous year. The earnings were \$211,460, an increase of \$15,344. The average earnings of each passenger were 96c., a decrease of .09%. This decline might ordinarily be attributed to a diminution in through traffic, but such, however, was not the case. It was due to the much greater increase in local traffic, and this explanation was satisfactory as indicating a growing prosperity within the immediate section of the country covered by the railway. The total freight carried in 1902 was 436,476 tons, an increase of 44,921 tons, and the earnings amounted to \$435,368, an improvement of \$30,661. The question of placing a steel or iron bridge at Beauce Jct. would have to be faced in the near future, and if that were done the track would have to be raised there. Owing to the continued increase in through traffic between New York, Boston and Quebec, arrangements have been concluded with the New York, New Haven and Hartford Rd., and the Boston and Maine Rd., to again run the through New York-Quebec train, which proved so satisfactory in 1902. It would be within the recollection of shareholders that a year or two ago a large sum was expended on rebuilding and refitting the shops at Newington, close to Sherbrooke. He was now able to state that to the end of 1902 there had been turned out 14 new box cars, and before Jan. 31 an additional 11 had been completed at the works, which meant a saving of \$2,650. The line had been kept in good order, both as to the permanent way and rolling stock. They had ballasted about 23 miles and put down over 60,000 new ties, besides adding over 6,000 ft. of new sidings. They had also purchased two new locomotives in addition to those bought to replace the two destroyed in the accident last year. To the end of April the net earnings for the current year exhibited a shrinkage of \$4,323, as compared with the corresponding period of 1902, but the board hoped that this deficiency would soon be made up, as the prospects of increasing business were good.

The report was adopted and the following were re-elected directors: E. Dent, A. Bremner, F. Grundy, F. H. Norman, Jos. Price and S. G. Sheppard.

A. E. Rosevear, Freight Claim Agent G.T.R., Montreal, was elected Vice-President of the Freight Claim Association, at the annual convention at Detroit, Mich., June 17.

F. Dillinger, Superintendent C.P.R. at Regina, Alta., has been given leave of absence on account of not being very well, and will take a rest in the east.

Canadian Northern Ry. Stock.

A prospectus, from which the following extracts are made, was issued in London, Eng., on June 2:—"Sperling & Co. are authorized to receive subscriptions for £400,000 4% perpetual consolidated debenture stock, part of an issue limited as within mentioned. The stock will bear interest at the rate of 4% per annum, payable by warrant, half-yearly, on June 30, and Dec. 31 in each year, the first payment of interest calculated from the dates of payment of the instalments being made on Dec. 30, 1903. The price of issue is 90%, payable as follows: £5% on application, £10% on allotment, £35% on July 3, 1903, £40% on Aug. 4, 1903. Or the whole may be paid up in full on allotment, or on the day for payment of any instalment under discount at the rate of 4% per annum.

"This stock is issued under the powers given by acts of the Dominion Parliament, and in pursuance, and under the authority of resolutions of the directors and shareholders of the company. The stock is perpetual and irredeemable. The trust deed provides that the total amount of debenture stock shall not exceed £2,000 a mile of line for the time being opened and operated, and an amount not exceeding the cost price of securities of independent corporations from time to time deposited with the trustees, but the Company cannot issue any debenture stock against such securities without the consent of the trustees for the shareholders. The debenture stock will be secured by a specific first mortgage upon the under-mentioned securities and other securities from time to time deposited with the trustees against further issues and by a general charge upon the undertaking, property and assets of the Company, subject to the £1,180,600 of bonds already created and issued and primarily charged on 287 miles of the Com-

pany's existing railway in Ontario, and to further charges created, or to be created, not exceeding \$10,000 a mile of line (other than the above-mentioned 287 miles of line in Ontario), or \$15,000 a mile if guaranteed by the Parliament of the Dominion or any of the Provinces of Canada.

"The money provided by the present issue will be applied, in the first place, in acquiring the bonds and stocks set out below, arrangements for the acquisition of which have already been made:—1. The Lake Superior Terminals Co., Ltd.: \$1,000,000 5% 1st mortgage gold bonds, \$500,000 stock (being the total stock issued); 2. The Winnipeg Land Co., Ltd.: \$300,000 5% 1st mortgage gold bonds, \$100,000 stock (being the total stock issued); 3. The Minnesota and Manitoba Rd. Co.: \$250,000 5% general mortgage bonds, \$400,000 stock (being the total stock issued); 4. The Minnesota and Ontario Bridge Co.: \$180,000 4½% 1st mortgage debenture bonds, \$100,000 stock (being the total stock issued); 5. The Canadian Northern Telegraph Co.: \$300,000 5% general mortgage bonds, \$500,000 stock (being the total stock issued).

"The stock will be registered on a register kept in England, at the London offices of the Company, Bond Court House, Bond Court, Wallbrook, London, E.C., and will be transferable in sums of £1 sterling or multiples thereof by instrument in writing in the usual common form. The stockholders will be entitled to the benefit of a trust deed, which will be entered into by the Company with the British Empire Trust Co., Ltd., of England, and the National Trust Co., Ltd., of Canada.

"The subscription list will be closed on June 4, 1903, at 4 p.m. It is intended to apply, in due course, for a settlement and quotation of the debenture stock on the London Stock Exchange. Application should be made on the form accompanying the prospectus, and for-

warded to the bankers, the Bank of Scotland and the Canadian Bank of Commerce, or any of their respective branches, together with a cheque for the amount due on application."

We are advised that the stock offered was fully subscribed for when the list closed.

Canada Southern Ry. Co. Meeting.

The report for the year 1902, presented at the annual meeting at St. Thomas, Ont., June 3, showed:

RESOURCES.

Net earnings of 1902	\$310,167 50
Michigan Central Rd., balance of 1901 account paid	224,886 81
Other receipts	3,928 18
Unexpended balance reserve fund for new second track, Dec. 31, 1901	87,207 05
Cash and cash assets, Dec. 31, 1901	18,138 24
	\$644,321 78

DISPOSITION OF RESOURCES.

Dividend paid Feb. 1, 1902	\$225,000 00
Dividend paid Aug. 1, 1902	150,000 00
Balance of net earnings due from Michigan Central Rd., Dec. 31, 1902	159,778 40
Unclaimed dividends	69 00
Expended on new second track, 1902	87,851 12
Other expenditures	999 72
Cash and cash assets, Dec. 31, 1902	20,623 54
	\$644,321 78

The balance showed liabilities of \$35,179,186.57, against which there were assets: construction and equipment, \$28,983,987.95; capital stock of owned and controlled companies, \$3,071,962.50; first mortgage bonds of owned and controlled companies, \$2,901,372.50; other investments, \$11,100; accounts receivable, \$30,361.68; due from Michigan Central Rd., \$159,778.40; cash and cash assets, \$20,623.54; total, \$35,179,186.57.

Following are the officers for the current year: President and Treasurer, C. F. Cox,

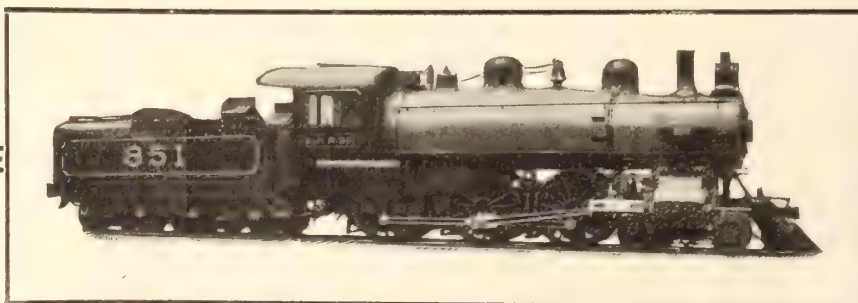
American Locomotive Company

BUILDERS OF LOCOMOTIVES FOR ALL CLASSES OF SERVICE.

President, S. R. CALLAWAY.
Vice-President, A. J. PITKIN.

Secretary, LEIGH BEST.
Second Vice-President, R. J. GROSS.

Treasurer, C. B. DENNY.
Mech. Engr., J. E. SAGUE.



SCHENECTADY WORKS, Schenectady, N. Y.
BROOKS WORKS, Dunkirk, N. Y.
PITTSBURG WORKS, Allegheny, Pa.
RICHMOND WORKS, Richmond, Va.

COOKE WORKS, Paterson, N. J.
RHODE ISLAND WORKS, Providence, R. I.
DICKSON WORKS, Scranton, Pa.
MANCHESTER WORKS, Manchester, N. H.

GENERAL OFFICE

25 Broad Street, NEW YORK CITY.

New York; Vice-President, E. A. Wickes, New York; Secretary, N. Kingsmill, K.C., Toronto; other directors: W. K. and F. W. Vanderbilt, C. M. Depew, S. F. Barger, J. E. Brown, New York; H. B. Ledyard, Detroit, Mich.

At a special meeting of the shareholders subsequently held, a new lease of the company's lines to the Michigan Central Rd. was authorized, the existing lease expiring Dec. 31. The new lease, which will date from Jan. 1, 1904, is subject to ratification by the shareholders of the Michigan Central Rd. U.S. press reports state that the new lease is for 999 years, and that under it the M. C. Rd. guarantees on the stock of the C. S. Ry. dividends at the rate of $2\frac{1}{2}\%$ a year until 1910, and 3% thereafter. The directors were also given power to issue bonds to retire first and second mortgage bonds maturing in 1908 and 1913. (June, pg. 189.)

The various subsidiary companies held their meetings at St. Thomas, June 3 and 4, and elected directors as follows: Niagara River Bridge Co., Niagara Grand Island Bridge Co., Canada Southern Bridge Co., Toledo, Canada Southern and Detroit Ry. Co., and Michigan, Midland and Canada Ry. Co.; same directors as Canada Southern Ry. mentioned above; Leamington and St. Clair Ry.: W. K. and F. W. Vanderbilt, C. M. Depew, C. F. Cox, E. D. Worcester, New York; J. Ross, Montreal; N. Kingsmill, Toronto. Sarnia, Chatham and Erie Ry.: W. K. and F. W. Vanderbilt, C. M. Depew, C. F. Cox, New York; N. Kingsmill, Toronto.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	\$3,246,620.51	\$2,070,909.25	\$1,175,711.25	\$79,844.32+
Aug.	3,534,184.56	2,101,283.11	1,362,901.46	57,269.36+
Sept.	3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+
Oct.	4,127,402.07	2,511,267.44	1,616,134.63	149,095.41+
Nov.	3,976,068.87	2,417,828.63	1,558,240.24	117,362.10+
Dec.	3,959,146.15	2,286,704.31	1,672,441.84	103,750.33+
Jan.	3,148,455.27	2,231,684.50	916,770.77	96,309.97+
Feb.	2,827,294.65	2,084,553.96	742,740.69	68,380.01+
Mar.	3,615,752.57	2,357,188.11	1,258,564.46	203,649.50+
Apr.	3,795,394.50	2,302,221.19	1,493,173.31	201,466.68+

\$35,901,800.57 \$22,694,367.42 \$13,207,433.15 \$1,135,150.46+
Approximate earnings for May, \$3,879,000, against \$3,204,000 for May, 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for April, \$215,190.81; net earnings, \$72,835.91, against \$241,297.23 gross and \$104,496.15 net for April, 1902. Net earnings for ten months ended April 30, \$815,199.91, against \$815,911.39 for same period, 1901-02. Approximate earnings for May, \$247,285, against \$226,553 for May, 1902.

MINERAL RANGE RY.—Approximate earnings for May, \$49,860, against \$53,568 for May, 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for April, \$576,910.43; net earnings, \$253,619.41, against \$535,068.37 gross and \$267,465.22 net for April, 1902. Net earnings for ten months ended April 30, \$2,986,876.24, against \$2,778,551.97 for same period 1901-2. Approximate earnings for May, \$580,326, against \$488,091 for May, 1902.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1902-03	1901-02	1902-03	1901-02
July	155,344.93	49,089.96	\$562,876.50	\$154,646.84
Aug.	139,723.83	50,747.82	473,064.85	165,871.16
Sept.	145,533.83	60,060.46	542,811.11	197,057.61
Oct.	279,616.23	150,572.96	952,645.35	465,655.62
Nov.	146,687.83	151,922.89	508,788.99	512,862.94
Dec.	577,382.61	132,151.16	1,683,289.45	403,261.78
Jan.	102,581.29	109,846.99	428,611.21	347,761.91

	Acres.		Amount.	
	1902-03	1901-02	1902-03	1901-02
Feb.	183,554.82	78,039.43	749,235.13	256,156.70
Mar.	184,139.22	101,029.22	782,968.76	333,852.22
April	207,344.12	231,127.11	884,432.24	695,071.68
May	187,416.19	207,153.05	618,357.87	736,021.45
	2,201,326.90	1,321,741.05	\$8,237,229.46	\$4,268,319.91

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase.	Decrease.
Jan.	\$2,634,200	\$2,278,978	\$355,222	....
Feb.	2,432,661	2,018,926	413,735	....
Mar.	2,967,408	2,537,873	429,535	....
April	2,787,054	2,436,756	350,298	....
May	2,913,553	2,574,198	339,355	....
	\$13,734,876	\$11,846,731	\$1,888,145	....

The following figures are supplied from the London, Eng., office:

GRAND TRUNK RY.

Revenue for April:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£457,000	£396,500	£60,500	....
Working expenses	315,600	238,500	57,100	....
Net profit	£141,400	£158,000	£16,600	....

Aggregate from Jan. 1 to April 30:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£1,784,700	£1,524,700	£260,000	....
Working expenses	1,278,700	1,019,500	259,200	....
Net profit	£506,000	£505,200	£800	....

GRAND TRUNK WESTERN RY.

Revenue for April:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£97,700	£87,200	£10,500	....
Working expenses	82,200	72,200	10,000	....
Net profit	£15,500	£15,000	£500	....

Aggregate from Jan. 1 to April 30:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£359,900	£309,100	£50,800	....
Working expenses	320,400	261,300	59,100	....
Net profit	£39,500	£47,800	£8,300	....

DETROIT, GRAND HAVEN AND MILWAUKEE RY.

Revenue for April:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£17,800	£17,000	£800	....
Working expenses	15,800	14,200	1,600	....
Net profit	£2,000	£2,800	£800	....

Aggregate from Jan. 1 to April 30:

	1903.	1902.	Increase.	Decrease.
Gross receipts	£78,500	£71,100	£7,400	....
Working expenses	59,800	52,100	7,700	....
Net profit	£18,700	£19,000	£300	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1, to May 30:

	1903.	1902.	Increase.	Decrease.
Grand Trunk	£2,267,452	£1,946,729	£320,723	....
G. T. Western	459,941	396,244	63,697	....
D. G. H. & M.	94,841	91,285	3,556	....
Total	£2,822,234	£2,434,258	£387,976	....

The International Association of Car Accountants held its 28th annual convention at Quebec June 16. The party, of about 80 members and a similar number of ladies, reached Quebec from Montreal by I.C.R., and made its headquarters at the Chateau Frontenac. The officers elected were: President, W. H. Rosevear, G.T.R., Montreal; Vice-President, H. L. Hunter, Minneapolis, St. Paul and Sault Ste. Marie Ry., St. Paul, Minn.; Secretary, L. G. Corcoran, Buffalo; Treasurer, F. M. Luce, Chicago. The next convention will be held at Washington, D.C., in May, 1904. After completing the business of the convention the party was conveyed by special train over the I.C.R. to Halifax, and back to Montreal.

July Birthdays.

Many happy returns of the day to

J. H. Black, Auditor, Kingston and Pembroke Ry., at Kingston, Ont., born near Smith's Falls, Ont., July 8, 1874.

D. W. Campbell, General Superintendent of C.P.R. Atlantic Steamship Service, born at Montreal, July 15, 1860.

Geo. Collins, General Superintendent Central Ontario Ry., at Trenton, Ont., born at Kingston, Ont., July 20, 1860.

E. J. Coyle, Assistant General Passenger Agent, C.P.R., at Vancouver, B.C., born at Stayner, Ont., July 23, 1870.

Wm. Coyne, Assistant to the President Consolidated Lake Superior Co. at Sault Ste. Marie, Ont., born at Calumet, Ind., July 14, 1866.

W. R. Haldane, District Freight Agent C.P.R., at Detroit, Mich., born at Galashiels, Scotland, July 6, 1867.

J. H. Hanna, Division Freight Agent G.T.R., at Hamilton, Ont., born at London, Ont., July 27, 1867.

G. U. G. Holman, President and General Manager Levis County Ry., at Levis, Que., born at Talea, Chili, July 21, 1866.

D. T. Lawrence, Manager National Despatch-Great Eastern Line, at Buffalo, N.Y., born at Marysville, Ohio, July 20, 1871.

J. M. Lyons, General Passenger and Ticket Agent I.C.R., at Moncton, N.B., born at Halifax, N.S., July 1, 1850.

T. J. Maguire, Accountant Quebec Central Ry., at Sherbrooke, Que., born at Quebec, July 31, 1860.

E. W. Meddaugh, General Counsel Grand Trunk Western Ry., at Detroit, Mich., born at Morseville, N.Y., July 16, 1833.

C. N. Monsarrat, Engineer of Bridges C.P.R., at Montreal, born there July 2, 1871.

J. B. Morford, Superintendent Canadian Division Michigan Central Rd., at St. Thomas, Ont., born at Warwick, Orange Co., N.Y., July 16, 1836.

J. E. Quick, General Baggage Agent G.T.R., at Toronto, Ont., born at Richmond, Ontario Co., N.Y., July 10, 1851.

W. C. Ross, Mechanical Foreman I.C.R., at Halifax, N.S., born at Quebec, July 26, 1863.

E. G. Russell, ex-Manager Intercolonial Ry., born at St. George, N.B., July 23, 1858.

P. E. Ryan, Secretary-Treasurer Temiskaming and Northern Ontario Ry. Commission, at Toronto, born at Ottawa, July 26, 1876.

Thomas Tait, Chairman of the Board of Railway Commissioners for Victoria, at Melbourne, Australia, born at Melbourne, Que., July 24, 1864.

Sault Ste. Marie Steel Industry.—C. Shields, President of the Consolidated Lake Superior Co., is reported to have stated as follows in a recent interview at Montreal:—

"In the manufacture of steel rails at Sault Ste. Marie, Ont., which will be started, as I expected, at the beginning of July, we will this year use 80% of ore from the Mesaba mines, and 20% from the Helen mine. Such a mixture will enable us to secure an ore that is particularly well adapted to the manufacture of a high-grade steel rail, that will, we expect, be equal to any manufactured in any part of the world. There has been a heavy demand for the ore from the Helen mine, and this year we will sell close on 500,000 tons to different companies throughout the U.S. We are shipping it as far down as Virginia. The reason of the large number of sales is that the ore, which is of a peculiar nature, is especially adapted to the manufacture of a high grade of steel when mixed with other ores."

MAINLY ABOUT PEOPLE.

Sir C. Rivers Wilson, President G.T.R., and Lady Wilson have returned to England.

H. J. Beemer, railway contractor and engineer, has returned to Montreal after a trip to England.

G. M. Brew, Marine Superintendent of the Furness-Withy steamship line, died in Montreal recently.

John Foy, President Niagara Navigation Co., Toronto, and Mrs. Foy, are visiting Atlantic City, N.J.

D. D. Mann, of Mackenzie, Mann & Co., has given \$5,000 to the Convocation Hall fund of Toronto University.

Mrs. Rippey, wife of W. Rippey, Assistant Superintendent of Transportation, Intercolonial Ry., Moncton, N.B., died there June 10.

Capt. J. R. Sinclair, Manager of the Great Lakes Towing Co., Chicago, Ill., who died there June 15, was a native of Kingston, Ont.

W. T. Waring, Inspector of Machinery and Boilers, for New Brunswick for the Department of Marine, died at St. John, N.B., June 1.

Miss Audrey Blair, daughter of the Minister of Railways and Canals, was married at Ottawa, June 17, to C. S. McCarthy, of that city.

Geo. Dickson, recently appointed Master Mechanic of the Baring Cross, Ark., shops of the Missouri Pacific Rd., was born at Montreal 1857.

H. C. Bourlier, jr., son of H. C. Bourlier, Passenger Agent, Allan Steamship Lines, Toronto, was married there June 18, to Miss N. G. Akers.

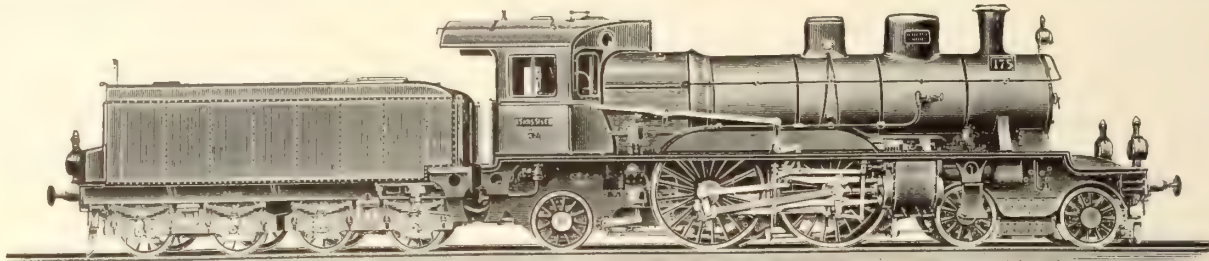
Miss A. Evans, daughter of J. D. Evans, Chief Engineer Central Ontario Ry., was married at Trenton, Ont., June 24, to H. F. Codd, of Toronto.

W. C. Bowles, Assistant General Freight Agent, Western division, C.P.R., at Calgary, Alta., was married, June 3, to Miss Sheddon, at Woodstock, Ont.

Jas. Murdock, of London, Ont., was elected one of the Grand Trustees of the Brotherhood of Railway Trainmen, at the recent convention at Denver, Colo.

T. Blackwell, for many years in the employ of the G.T.R. in London, Ontario, as transfer clerk, and who left the service in 1902, died there June 7, aged 70.

Capt. Bernier, who is promoting a Canadian Polar expedition, proposes to construct

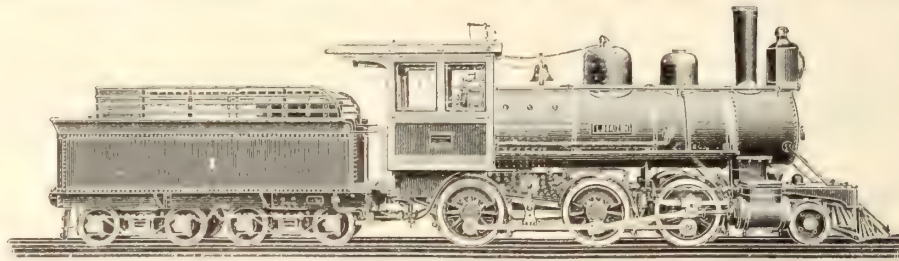


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Workmen,
5,200.**



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Montreal.
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Drummond, McCall & Co.,

General Sales Agents,
The Algoma Steel Co., Ltd.

his vessel on the Pacific coast, and to have it ready by June, 1904.

M. Archibald, C.E., son of P. S. Archibald, C.E., of Moncton, N.B., has been appointed Engineer of Construction, Dominion Coal Co. Office, Glace Bay, N.S.

W. Z. Earle, formerly Chief Engineer on the Algoma Central and Hudson Bay Ry., has been appointed to the engineering staff of the Grand Trunk Pacific Ry.

F. L. Robinson, Auditor and General Passenger Agent, Canada Eastern Ry., at Marysville, N.B., was married recently in St. John, N.B., to Miss I. M. Warwick.

Miss E. E. Overend, daughter of M. A. Overend, Foreign Freight Agent, Canada Atlantic Ry., at Montreal, was married recently to T. E. Plewman, of Toronto.

Dr. W. Seward Webb, President, Rutland Rd., is reported seriously ill in London, Eng., and members of his family recently sailed from New York to be with him.

W. Jessop, of W. Jessop & Son, of Sheffield, Eng., makers of steel for locomotive tires, machine tools, etc., recently visited Toronto, Montreal, and other points in Canada.

J. A. Muir, General Manager of the Los Angeles Ry., and a director of the Gila Valley, Globe and Northern Ry., in California, was born at Truro, N.S., Sept. 25, 1850.

A. W. Mackenzie, Treasurer, Canadian Northern Ry., is owner of Wire In, the winner of the King Edward Hotel gold cup at the recent meeting of the Ontario Jockey Club, Toronto.

J. L. Sutherland, a railway contractor of River John, Pictou county, N.S., was killed by an explosion of dynamite on the Northern Colonization Ry. extension at Labelle, Que., recently.

Mrs. Sanford, wife of H. Sanford, Vice-President, Adams Ex. Co., Bridgeport, Conn., died suddenly June 17, at her native place, Newcastle, Ont., where she had a summer residence.

Miss Louise Stout, daughter of W. S. Stout, Vice-President and General Manager, Dominion Express Co., Toronto, was married there June 25, to M. B. Downs, of Bridgeport, Conn.

Alex. Fraser, lumberman, and one of the promoters of the Hull Electric Co., operating the electric railway between Hull and Aylmer, Que., died in Ottawa recently, as a result of a shooting accident.

W. F. Egg, City Passenger Agent C.P.R., Montreal, who has been ill for a couple of months, and has been staying at Ste. Agathe, Que., is recovering, and is expected to return to his office shortly.

Capt. W. B. Leslie, who is in command of a company of the Royal Engineers in the British Somaliland expedition, is a son of Capt. Leslie, Manager of the Collins Bay Rafting Co., Kingston, Ont.

Chief Clerk Martin, of the C.P.R. freight office at Sherbrooke, Que., was presented with a chair, a carving set and other articles, by the staff of the station on the occasion of his marriage recently.

M. J. Kennedy, formerly Superintendent of the Montreal Street Ry., has been appointed Superintendent of the Greenwood division of the Brooklyn Rapid Transit Co.'s surface lines at Brooklyn, N.Y.

A. Piers, Manager C.P.R. Steamship Lines, sailed from New York for England on a business trip, June 12. Mrs. Piers and daughters will join him in England later on, and will be absent until the autumn.

R. C. Morgan, who was recently appointed Superintendent of the Spokane Falls and Nor-

thern Rd., which operates the Great Northern Ry. Co.'s B.C. line, was born at Phillipsburg, Que., Nov. 12, 1864.

J. D. Tompkins, C.P.R. agent at Gretna, Man., has been presented with a suite of oak furniture, by the residents of that town, on his promotion to another post in the company's service at Winnipeg.

J. A. Smith, Chief Clerk in the office of the Master Mechanic, C.P.R., Lake Superior Division, was presented with a suit case by a number of friends on leaving North Bay for Gladstone, Mich., recently.

R. C. Manson, Travelling Freight Agent, G.T.R., Montreal, was recently presented with a case of silverware and cutlery by the staff of the Division Freight Agent's office, on the occasion of his marriage.

Miss C. Mackenzie, of London, Ont., was a passenger on a recent C.P.R. steamer from Vancouver to Yokohama, Japan, where she was to be married to H. B. Darnell, of the C.P.R. Company's office there.

Major C. L. MacNab, of the Royal Sussex Regiment, depot at Chichester, Eng., reaching that rank after only 11 years' service, is a son of the late Alex. MacNab, formerly Chief Engineer of the Intercolonial Ry.

W. D. Reid, General Manager of the Reid Newfoundland Co., has been appointed Treasurer of the Newfoundland Timber Estates, (Ltd.) This Company holds 11,760,000 acres of timber limits in Newfoundland.

Miss Eva Woollatt, daughter of W. Woollatt, General Superintendent of the Lake Erie and Detroit River division of the Pere Marquette Rd., was married at Walkerville, June 7, to O. H. MacMicking, of Calgary, Alta.

C. A. Monkman, chief clerk in the construction department of the C.P.R. at Winnipeg, Man., was married there June 2 to Miss J. M. Allan, daughter of J. H. Allan, of the Canadian Northern Ry. engineering staff.

J. E. Matthews, who has been appointed C.P.R. soliciting passenger agent at Charlottetown, P.E.I., was born at Albany, P.E.I., Aug. 17, 1869, and now enters railway service for the first time. Hitherto he had been successively engaged in teaching, journalism and insurance business.

E. L. Chudleigh, who has been appointed Chief Train Dispatcher C.P.R. at Moose Jaw, Assa., was born at Clinton, Ont., Jan. 3, 1873, and entered railway service in the C.P.R. at Medicine Hat, Assa., Dec., 1888, since which he has been successively messenger, operator, agent and dispatcher, entire service with C.P.R.

The body of B. F. Egan, Superintendent of the Kalispell division of the Great Northern Ry., U.S., who was lost in a snow storm while on a shooting expedition near Belton, Mont., Nov. 4, 1902, was found June 1. It was impossible, owing to the decomposition of the body, to ascertain whether death had resulted from exposure or an accident. Mr. Egan was at one time in the employ of the C.P.R. at Winnipeg.

F. Barlow Cumberland, who formerly carried on a general ticket agency business on Yonge st., Toronto, and who now resides in London, Eng., has been elected President of the newly organized Canadian Society of London. The membership is restricted to native-born Canadians, and those who have had 10 years' residence in Canada. The society, which has a large membership already, recently held a dinner, at which Lord Strathcona presided.

Maritime Province papers recently announced the impending retirement of E. Tiffin, General Traffic Manager of the Intercolonial Ry., the promotion of L. R. Ross, Superintendent of Terminals at St. John, to

the vacant position, and the names of a number of candidates for the position at St. John. Mr. Tiffin denies that he has any intention of resigning; Mr. Ross has returned to St. John after being at Ottawa on official business, and denies all the rumors about himself, including the one that he had been appointed Vice-President of the Lake of the Woods Milling Co.

W. A. Winfield, who has been appointed Manager of the Telephone Co. of Prince Edward Island, was born at Derby, Eng., in 1879, and entered the service of the Nova Scotia Telephone Co. as night operator and switchboard repairer in 1895, removing to Windsor in 1897. He was subsequently made Superintendent of the Windsor district, and in 1900 was appointed District Superintendent of the eastern division of the company's lines, with headquarters at New Glasgow, N.S., remaining there until his present appointment. He is a brother of J. H. Winfield, General Manager of the Nova Scotia Telephone Co.

C. C. Gregory, civil engineer and barrister-at-law, died at Halifax, N.S., recently. He was on the engineering staff of the Great Western Ry. from 1857 to 1859, and after a period in the service of the New Brunswick Government, had charge of construction of the line from St. John, N.B., to Mattawamkeag, Me., now part of the C.P.R. He was also engaged on the construction of what is now the Fredericton branch of the C.P.R., a portion of the Prince Edward Island Ry., of the Eastern Extension Ry., and the Halifax and Cape Breton Ry. As a lawyer he was engaged in a number of cases before the courts and in arbitration proceedings, notably the C.P.R. case against the Dominion Government in regard to construction through B.C., and in the arbitration proceedings of R. G. Reid and the Newfoundland Government.

T. H. White, C.E., whose portrait appears on the first page of this issue, was born at St. Thomas, Ont., Jan. 27th, 1848, and entered railway service in 1870, since which he has been consecutively: 1870 to 1872, rodman on Canada Southern Ry.; 1873, assistant engineer on the Great Western Ry. between Glencoe and Windsor, Ont., and at the Sarnia yards; 1874, leveller and transitman on location from Hamilton to Collingwood, Ont.; May, 1875 to 1883 assistant engineer on surveys, location, and on construction, under Marcus Smith, on the projected Government transcontinental railway; 1883 to 1896, C.P.R. division engineer in charge of construction north of Lake Superior, on the Algoma branch from Sudbury to Sault St. Marie, in Manitoba, Ontario, and Maine; 1896, with Mackenzie, Mann & Co., on location and construction of first 100 miles of Lake Manitoba Ry. and Canal Co.; 1897 in employ of private persons on mining properties in Caribou and Kootenay, B.C.; Jan., 1898, to date with Mackenzie, Mann & Co., in charge of the projected Stikeen-Teslin Ry. (the construction of which was abandoned on the Senate refusing to ratify the contract between Mackenzie, Mann & Co., and the Government); as Chief Engineer on construction of the Ontario and Rainy River Ry.; and now Chief Engineer in charge of construction of Halifax and South Western Ry. at Bridgewater, N.S.

The annual convention of the Train Dispatchers' Association of America was held June 16, at Nashville, Tenn. It was reported that there were now 779 members in the association, an increase of 28. J. R. Lane, of the C.P.R. dispatching staff at Farnham, Que., was elected Vice-President.

C. C. Young, who recently resigned his position as general agent L.E. and D.R. Ry. at London, Ont., is reported to have secured a position on the C.P.R. west of Winnipeg.

Pintsch System Car and Buoy Lighting.

This Company controls in the United States and Canada the celebrated Pintsch System of Car and Buoy Lighting. It is economical, safe, efficient, and approved by the railway managers and Lighthouse Board of the United States, and has received the highest awards for excellence at the World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta and Buffalo. 120,000 cars, 5,000 Locomotives and 1,700 Buoys are equipped with this light. 170 Railroads in the United States, Canada and Mexico have adopted this system of lighting, applied on over 20,000 cars.

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Master Mechanics' Convention.

The annual convention of the American Railway Master Mechanics' Association was held at Saratoga, N.Y., June 24 to 26. A number of important reports were presented, of which the following are summaries:

TON-MILE STATISTICS.—The report of this committee is based on a series of tests of switching engines made by G. L. Fowler. The observations show that the arbitrary allowance of six miles an hour for engines in switching service is much too high, and that, for strictly yard work, "four miles an hour for passenger switchers, and 3½ miles for freight switchers would undoubtedly be a liberal allowance." Further tests will no doubt be made, using a dynamometer at both ends of the engines in order to obtain the average drawbar pull. When this is done, the ton mileage can be computed by dividing the drawbar pull by the train resistance at the average speed, and multiplying the quotient by the total mileage. In the past, there was less need of a ton-mile basis for switching service because most switch engines were about the same size, having cylinders 18x24 in., drivers 50 in., and a steam pressure of 145 lbs.—the tractive effort being about 18,000 lbs. There are now many switch engines in service having a tractive effort of 32,000 lbs. Evidently the larger engine will do more work in a given time than the smaller machine, and hence the mileage is an unfair basis for comparison.

ELECTRICALLY DRIVEN SHOPS.—This is a review of the systems now used for driving machine tools by electricity. The relative merits and cost of each system, as determined from experience, are given. The data on which the report is based are given in considerable detail and will be found invaluable to designers of railway shops.

LOCOMOTIVE FRONT-ENDS.—This is a summary of the series of tests which Prof. W. F. M. Goss has been making. Many of the problems of the front-end have been solved, and it is concluded among other things that the taper stack is more efficient than the straight stack of the same diameter; that the higher the stack, the stronger the draft, and that there is a definite relation between the position of the exhaust nozzle and the diameter of the stack. Equations are given for proportioning the several elements in the front-end for given conditions. Attention is also called to the uneconomical feature of the diaphragm, and it is recommended that further tests be made for the purpose of dispensing with the diaphragm, if possible. About 30% of the total draft is dissipated in drawing the hot gases from the tubes and under the baffle plate.

SPECIFICATIONS FOR LOCOMOTIVE FORGINGS.—The committee has given a set of specifications for locomotive axles and forgings, covering the physical and chemical requirements of each, methods of making tests and general instructions for inspectors. Three sets of specifications are given, one for driving wheel axles, one for miscellaneous forgings and one for billets. A method is suggested for obtaining test pieces from axles without impairing the value of the axle for service. The specifications have been prepared to conform to those recommended by the International Association for Testing Materials, and the requirements are such that no difficulty should be encountered by the makers in meeting them.

RECENT IMPROVEMENTS IN BOILER DESIGN.—The report is a comprehensive review of the progress which has been made in the design of locomotive boilers. Examples of modern construction are given, both English and American. Suggestions are made pointing out the lines along which further improvements can be made. The tendency to overcrowd the boiler shell with tubes is criticized,

and it is recommended that tests should be made for determining the relative efficiency of long and short boiler tubes.

PISTON VALVES.—This covers the subject in a thorough and comprehensible manner, and the experience of many roads with different forms of valves is given in detail. The designs of piston valves generally used are shown, and their relative merits are discussed. This subject has been receiving considerable attention, and the piston valve has been, at times, severely criticized on account of its large clearance spaces.—*Railroad Gazette.*

Recent Dominion Legislation.

The following acts relating to transportation and allied interests, passed at the current session of the Dominion Parliament, were assented to June 25:—

Amending Chap. 8 statutes 1900, authorizing the granting of Railway Subsidies.

Respecting the Kootenay Central Ry. Co.

Respecting the C.P.R. Co.

Respecting the Quebec and New Brunswick Ry. Co.

Respecting the British Columbia Southern Ry. Co.

Respecting the Canada National Ry. and Transport Co.

Respecting the Huron and Ontario Ry. Co.

Respecting the Niagara Grand Island Bridge Co.

Respecting the Ottawa, Northern and Western Ry. Co.

Correcting a clerical error in the Act to incorporate the Edmonton and Slave Lake Ry. Co.

Incorporating the Quebec, Saguenay and Gulf of St. Lawrence Ry. Co.

Incorporating the Coast Yukon Ry. Co.

Incorporating the Kootenay, Cariboo and Pacific Ry. Co.

Incorporating the Joliette and Lake Manuan Colonization Ry. Co.

Respecting the Great North-west Central Ry. Co.

Respecting the G.T.R. Co. of Canada.

Incorporating the Shipping Federation of Canada.

Respecting the Atlantic, Quebec and Western Ry. Co.

Respecting the Hudson's Bay and Pacific Ry. Co.

Incorporating the Père Marquette International Bridge Co.

Incorporating the Regina and Hudson's Bay Ry. Co.

Respecting the Nipissing and James Bay Ry. Co.

Incorporating the Macleod, Cardston and Montana Ry. Co.

Respecting the Lindsay, Bobcaygeon and Pontypool Ry. Co.

Respecting the Edmonton, Yukon and Pacific Ry. Co.

Respecting the Ottawa Electric Ry. Co.

Incorporating the Nipissing and Pontiac Ry. Co.

Respecting the Calgary and Edmonton Ry. Co.

Respecting the Canadian Northern Ry. Co.

Respecting the Alberta Ry. and Coal Co.

Respecting the Lake Erie and Detroit River Ry. Co.

Respecting the Desjardins Canal.

Respecting the Canada Atlantic Ry. Co.

Incorporating the North-west Coal and Coke Ry. Co.

Respecting the Alberta Central Ry. Co.

Incorporating the Hudson's Bay and Occidental Ry. Co.

Respecting the Canadian Steel Co.

Incorporating the Huron, Erie and Buffalo Ry. Co.

Respecting the St. Mary's River Ry. Co.

Incorporating the Cardiff Ry. Co.

Respecting the Interprovincial and James Bay Ry. Co.

Respecting the Klondike Mines Ry. Co.

Incorporating the Hamilton, Galt and Berlin Ry. Co.

Respecting the Elgin and Havelock Ry. Co.

Per Diem Charge for Cars.

At the annual convention of the International Association of Car Accountants and Car Service Officers, held recently in Quebec, the committee on per diem presented a lengthy report on the operation of the system. The committee points out "that the established rate of 20c. a day for the use of foreign cars is inadequate to cover the interest on the investment, depreciation and repairs, and that it has not acted as an incentive to return cars at times when cars are in great demand. The committee recommends that the rate be advanced to 30c. a day, although admitting that even that charge would still be inadequate. While the recommendation is a step in the right direction it does not go far enough. Certainly no road should expect to use the cars of other roads without equitable compensation. The theory underlying the whole system of interchange is reciprocity. Railways do not build cars to hire out at 20, 30, or any other number of cents per day. They build cars for their own use and expect when permitting their use by another line to receive an equal number of cars in return. To fix the per diem rate at too low a basis works a double wrong. It does not, on the one hand, pay for maintenance, and it furnishes, on the other hand, an incentive for railroads to borrow cars rather than to build them. The per diem rate should be very materially raised. On the basis of an even exchange there would be nothing to pay, and where the exchange is unequal the rental ought to be compensatory. The same argument will apply as to the return of cars. Twenty cents a day furnishes little inducement for a road to return borrowed equipment when it can earn from 10 to 100 times that amount by keeping it. From this standpoint, also, the present per diem rate encourages roads to borrow instead of building cars. There is certainly no incentive to invest large amounts in equipment if the needed cars can be had when wanted, and only so long as wanted, at the rate of 20c. a day. It is very easy to dodge the penalty clause of the arrangement, and, as stated by the committee in its report, a large number of roads have successfully illustrated how this may be done. Nor, when it comes to this part of the question, is it the smaller roads or those having the least equipment that are the chief offenders. According to the committee, 'the result has been that nearly every road has attempted to retain in its possession every car that it got hold of regardless of initials or ownership.' Such a condition will justify the raising of the per diem rate to an amount that will effectually check the practice. So long as the interchange is equal it makes no difference how high the rate is fixed, and simple justice requires that when it is unequal the burden should be upon the borrowing road."—*Railway Age.*

St. John's, Nfld., Street Ry.—We are advised that recent press reports, to the effect that suburban trolley cars, operated by storage batteries, were to be placed in service on the line, is "merely a newspaper story," and that the management knows nothing about any such project. (June, pg. 218.)

M. J. Haney, C.E., has returned recently to Toronto from his trip round the world, and is now at Charlottetown, P.E.I., superintending his contract for building the substructure of the Hillsboro' river bridge.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Constructions, Betterments, Etc.

Adams River Ry. Co.—C. Elliott, H. McLean and J. R. Webster were incorporated at the last session of the B.C. Legislature under this title, and not as the Adams River and Hectate Channel Ry. Co., as mentioned in their application. (June, pg. 213.)

Alaska.—Press reports state that \$120,000 worth of railway material and equipment have been forwarded to Solomon city, Alaska, for the construction of a railway from Solomon city to Council city, 50 miles. (May, pg. 145.)

Alberta Central Ry. An act has been passed at the current session of the Dominion Parliament authorizing an extension of time for the construction of this line, and giving power for a further extension. (Feb., pg. 37.)

Alberta Ry. and Coal Co.—Power has been given by an act passed at the current session of the Dominion Parliament, to the company to amalgamate with the St. Mary's River Ry. Co., or to purchase the undertaking of that company. (Feb., pg. 37.)

Algoma Central and Hudson Bay Ry.—See pg. 221.

Atlantic, Quebec and Western Ry.—An act has been passed at the current session of the Dominion Parliament giving Dominion incorporation to the A., Q. and W. Ry. Co., a Quebec provincial company. The company is empowered to construct a railway from Gaspé Basin, Que., through the valley of the St. John or York river for 30 miles, thence westerly to the I.C.R., north of Causapsca, thence southwesterly to Edmundston, N.B.; also from the Atlantic and Lake Superior Ry. at Paspébiac, Que., to Gaspé Basin, via Port Daniel. The company is given power to construct a deep-water terminal at Gaspé Basin, to construct a short line of railway from its authorized line to the terminal, and to acquire the line of the Atlantic and Lake Superior Ry. The capital is fixed at \$2,000,000, and bonds to the extent of \$25,000 a mile may be issued. The line is to be commenced within two and completed within five years.

The New Canadian Co. (Ltd.) has been formed in London, Eng., with the object of acquiring the charters of the A., Q. and W. Ry. Co., and financing the construction of the line. Application is being made at the current session of the Dominion Parliament for an act giving this British company a Dominion charter, to enable it to carry out its purposes, and to construct terminals, wharves, etc., at Gaspé Basin, and to enter into contracts with owners of ocean-going steamers to use the same. The capital of the proposed company is \$500,000.

Considerable opposition was shown to the passing of the railway bill, on the ground that it was not intended to use the large powers asked for, except with a view of obtaining subsidies, which would be used for financing the construction of a line from Gaspé to some oil well owned by those interested in the charter. The New Canadian Co. has deposited \$35,000 in the London, Eng., branch of the Bank of Montreal to pay for surveys, and will pay \$50,000 in cash or shares for the charter of the railway. A number of the incorporators of the railway are also directors, etc., of the New Canadian Co. The application for the charter for the N. C. Co. was referred by the Senate back to the Railway Committee for further consideration, June 13. (May, pg. 145.)

Bay of Quinte Ry.—The extension of this line from Tweed to Bannockburn, Ont., via Actinolite (or Bridgewater) is under way, the contractors being McCoy and Wilford, and J. R. McQuigge. The distance is about 20 miles. (June, pg. 213.)

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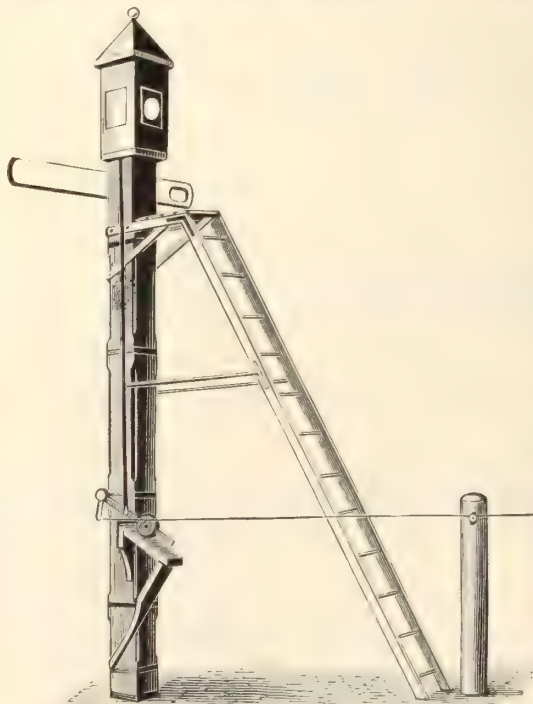
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Belleville and Point Anne Ry. Co.—A. A. Ansley, W. Pinkerton, T. S. Carmen, U. E. Thompson, J. McGowan, J. W. McNab, were incorporated at the recent session of the Ontario Legislature with this title to construct a railway from the G.T.R. line in the township of Thurlow, to the shore of the Bay of Quinte at Port Ann. The capital of the company is fixed at \$50,000, and power is given to issue bonds to the extent of \$10,000 a mile. The application was made in the name of the Point Ann Ry. Co., but the title was changed by the Legislature. The line is to connect the Belleville Portland Cement Co.'s works with the G.T.R. (May, pg. 150.)

Berlin, Waterloo and Lake Huron Ry.—During the passage of the bill of the Berlin, Waterloo, and Georgian Bay Ry. Co. through the Commons its title was changed by substituting "Lake Huron" for Georgian Bay, and changing the route so that the line to be constructed will extend from Berlin to Wellesley, Linwood, and Glen Allan, thence to Goderich, Ont. Collingwood was the terminus originally proposed. (June, pg. 213.)

Brandon, Saskatchewan and Hudson's Bay Ry.—M. S. Fraser, J. D. McGregor, C. A. Young, A. C. Fraser, P. B. H. Ramsey, J. A. Osborne, C. Whitehead, T. C. Norris and J. W. Bettes, are making application at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from the International boundary between ranges 23 and 25 west of the principal meridian in Manitoba, via Brandon and Pas Mission to Fort Churchill or some other point on Hudson's Bay; from the International boundary between ranges 16 and 18 west of the principal meridian to the International boundary south of the Souris river; from Brandon to Neepawa; and branches not exceeding 50 miles in length. The Bill was thrown out by the Railway Committee, but was restored to the order paper by direction of the House of Commons, June 24. (Mar., pg. 93.)

B.C. Northern and Mackenzie Valley Ry. Co.—The bill incorporating this company was passed at the recent session of the B.C. Legislature. The main lines to be constructed will be of standard gauge and will be operated by steam, but power is also given to construct branch lines or feeders of a gauge to be approved by the Government, to be operated either by steam or electricity, and to construct branches on the monorail principle. (June, pg. 213.)

The B.C. Southern Ry. Co. was at the current session of the Dominion Parliament granted an extension of five years within which to construct or acquire a railway from Fort Steele to Golden, B.C., following the valleys of the Columbia and Kootenay rivers.

Bruce Mines and Algoma Ry.—The amended act giving power to construct a line from the present terminus at Rock Lake station, Ont., to Biscotasing station on the C.P.R. transcontinental line, was passed at the recent session of the Ontario Legislature. (June, pg. 213.)

Canada Atlantic Ry.—Power was given at the current session of the Dominion Parliament to construct a line from west of Whitney station, Ont., northwesterly to Sault Ste. Marie, Ont. The line is to be constructed within five years, and power is also given to complete lines authorized in previous acts within five years from the date of this act.

The extension to Sault Ste. Marie will probably be constructed from Brule Lake station, 182 miles west of Ottawa, although there have been rumors to the effect that the line constructed in 1902 by the St. Anthony Lumber Co., from Whitney to Big Opeongo lake, would be utilized. While this piece of line was constructed as a lumbering road, it was generally stated that the work done was of such

a character as would warrant the use of the line for passenger traffic. E. J. Chamberlin, General Manager, is reported to have recently stated that surveys for the new line would be commenced early next winter and that construction would be proceeded with immediately thereafter. (May, pg. 145.)

Canada Central Ry.—An act was passed at the recent session of the Ontario Legislature authorizing the construction of a line, in connection with its authorized main line, from Sudbury to Toronto, passing through Scotia Jct., Fenelon Falls, Port Perry; and a line from near Montreal river, Nipissing district, easterly to the boundary between Ontario and Quebec. A resolution was passed by the Legislature authorizing the setting apart of 7,400 acres of land a mile, towards the construction of not exceeding 70 miles of railway from the head of deep water navigation on the French river, through Sudbury, to a point in Hutton tp. H. C. Hamilton, Solicitor at Sault Ste. Marie, Ont., for the Consolidated Lake Superior Co., stated that this was the line for which F. H. Clergue recently asked a land grant bonus from the Government. Those interested in the line were not identical with those behind the C.L.S. Co., but included some of them; and their relations to the C.L.S. Co. would be altogether in harmony. The line would connect at Sudbury with the Manitoulin and North Shore Ry. Co.'s line. F. H. Clergue will leave shortly for England, and it is said his object is to place the Company's bonds. (Jan., pg. 19.)

Canada National Ry. and Transit Co.—By an act passed at the current session of the Dominion Parliament the Company has been given an extension of two years within which the construction of the projected railway from Toronto to Collingwood, Ont., may be commenced. (Feb., pg. 38.)

Cape Breton Electric Ry.—The difficulties between the Company and the town council of Sydney Mines, N.S., have been adjusted, and the operation of the lines in the town commenced. (Jan., pg. 19.)

Cape Breton Ry.—We were advised June 4, that the bridge over river Tillard would be completed a few days thereafter, and that rails would be laid into St. Peters N.S., about the same time. The stations and other structures on the 31 miles between Point Tupper and St. Peters, are being proceeded with, and it is expected that everything will be completed so to permit operations by Aug. 1. No definite arrangements have been made for continuing construction eastward from St. Peters. (June, pg. 213.)

Cardiff Ry.—J. J. Haney, W. G. Black, J. L. McDougall, Jr., Ottawa; J. E. Woods, C. Renney, Frank, Alta., were incorporated by an act passed at the current session of the Dominion Parliament with this title to construct a railway from sec. 31, tp. 6, range 3, west of the 5th meridian, to a junction with the C.P.R. Crow's Nest branch near Frank, Alta. Bonds to the extent of \$30,000 a mile may be issued, and the Company may lease or sell its line to the C.P.R. (Jan., pg. 19.)

Central Trunk Ry.—The application to the Ontario Legislature for a charter to incorporate the C.T. Ry. Co., was signed by H. F. Codd, Toronto; W. D. Hogg, Ottawa; A. Langlois, J. Robinson, H. W. Raphael, Montreal; M. J. O'Brien, Renfrew; E. McMullen, Boston, Mass.; C. M. Thompson, J. D. Wells, New York city. The application was thrown out by the Railway Committee. (June, pg. 213.)

The Chateauguay and Northern Ry. has acquired a width of 40 ft. of the right of way of the Montreal Terminal Ry. from Bout de

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l'Isle to Moreau st., Montreal, and has also purchased some property for station and terminal purposes. A plan of the station and terminals will be submitted to the city council for approval. (May, pg. 146.)

Chicoutimi and Northeastern Ry.—J. Girard, Chicoutimi, Que.; Sir. A. P. Caron, C. B. Powell, J. Edgerly, R. V. Sinclair, R. Sinclair, J. A. Ellis, Ottawa; J. G. and B. A. Scott, W. J. Ray, E. J. Duggan, Quebec, are applying at the current session of the Dominion Parliament for the incorporation of a company with this title to construct a railway from the Québec and Lake St. John Ry., near Chicoutimi, to Rigolet Bay, or some point on the Gulf of St. Lawrence or Atlantic coast.

Comox Coal Co.—Owing to a discovery of anthracite coal about 4 miles from Cumberland, Vancouver Island, a railway is being constructed by the Comox Coal Co. to the mines. Rails have been purchased and were expected to reach Victoria by the end of June.

Coast Yukon Ry. Co.—By an act passed at the current session of the Dominion Parliament R. Kelly, F. Burnett and J. Webster, Vancouver, B.C., were incorporated with this title to construct a railway from Kitamaat inlet, Douglas channel, B.C., to near Atlin lake, thence to the Yukon river, and thence to the International boundary between Alaska and Yukon Territory via Dawson. The Company is authorized to issue bonds to the extent of \$40,000 a mile, and is given two years to commence, and five years to complete its railway. (May, pg. 147.)

The Colonial Portland Cement Co. was given power at the last session of the Ontario Legislature to construct an iron or steel tramway from its works on Colpoys Bay, Keppell tp., Ont., to its marl deposits. (April, pg. 119.)

Debert Mines to Debert Station.—Hon. F. A. Lawrence, Dr. Hayes and R. Archibald had an interview with the Minister of Railways and the Finance Minister at Ottawa, June 18, with a view of obtaining a subsidy for the construction of about 4 miles of railway in Colchester county, N.S., to connect Debert station, on the Intercolonial Ry., with Debert coal mines. Preliminary surveys have been made and an easy gradient is reported to have been found.

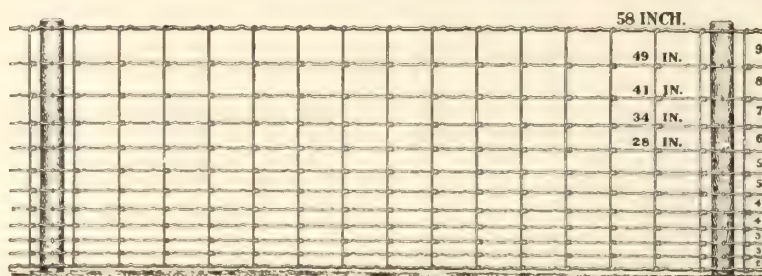
Dominion Atlantic Ry.—Considerable improvements are being made at the Kentville station and yard. The covered platform is being extended to the west, and the ground to the south of the station is being laid out with shrubbery. It is proposed to divert the tracks of the Cornwallis valley branch approaching the station, and to rearrange the siding accommodation, extending it to the western end of the yard.

Edmonton and Slave Lake Ry.—By a clerical error the word "Railway" was omitted in sec. 1, English version of the company's act of 1899, and at the current session of the Dominion Parliament an act has been passed correcting the error.

Edmonton, Yukon and Pacific Ry. Construction has been commenced on the extension of this 4 mile railway from its present terminus Edmonton, Sask., to the site of the new station on the Hudson's Bay Co.'s property. It is expected the line will be pushed through this season as far as Fort Saskatchewan. The time for the completion of construction of the Company's projected line has been extended by an act passed at the current session of the Dominion Parliament for a further period of five years. (Feb., pg. 39.)

Elgin and Havelock Ry.—R. E. Harris, President, and J. F. Stairs, a director of the Company, accompanied by P. S. Archibald, C.E., Manager, made an inspection trip over the line recently. The roadbed, etc., has

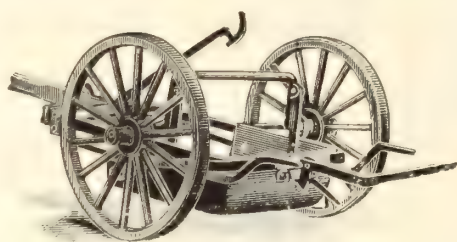
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been considerably improved since the new owners took the line over.

At the current session of the Dominion Parliament an act was passed authorizing an extension of the line from Havelock, N.B., to Chipman; from between Havelock and Chipman to Salisbury or Moncton, and from Elgin to near Alma on the Bay of Fundy. (Mar., pg. 95.)

Embro Radial Ry.—J. Sutherland, J. G. Lindsay, W. E. Andison, W. R. Munroe, J. Munroe, D. R. Ross, H. Adams, H. Sutherland, Embro, Ont., were incorporated at the last session of the Ontario Legislature under this title to construct an electric railway from Embro to Beachville, from Embro to Woodstock, from Embro to lot 15, con. 8, Oxford, from Embro to Stratford, from Embro to St. Mary's. The capital of the company is fixed at \$400,000, apportioned to the different sections of the line, and work may be commenced on any one section, so soon as 25% of the capital apportioned for that section shall have been paid up. (Mar., pg. 95.)

Fort Erie to Chippawa.—The proposal to construct an electric railway between Fort Erie and Chippawa, Ont., and in regard to which an agreement was entered into between the Commissioners of Queen Victoria Niagara Falls Park and the Fort Erie Ferry Ry. Co., respecting the embankment of Niagara river, has not gone beyond the promotion stage. At the recent session of the Ontario Legislature an act was passed giving the Commissioners power to enter into an agreement with any company to construct an electric railway between the two points named, such company being debarred from amalgamating with any electric company holding a Dominion charter. The line and highway is to be laid out and constructed according to a profile and specifications contained in the act, and the company is to pay a rental at a rate to be agreed upon for the privileges conveyed. Pending the agreement with a company the Commissioners may incur necessary expenditures for the preservation of the park against the wash of the river; for the repair or construction of the highway along the river, and for the purchase of any land required for the purpose; such expenditures to be considered in making an agreement with a company to construct the electric line. The act declares that the agreement made with the Fort Erie Ferry Ry. Co., and the acts ratifying the same are null and void. (Oct., 1901, pg. 307.)

Fort Frances, Manitou and Northern Ry.—A. and L. B. Blum, Boston, Mass.; E. W. Smith, Meriden, Conn.; J. G. Mollatt, New York city, were incorporated at the recent session of the Ontario Legislature with this title to construct a railway, to be operated by steam or electricity, from Fort Frances northerly to the C.P.R. transcontinental line at or near Dinorwic, with a branch from Manitou lake to the C.P.R. transcontinental line at Dymont, together with other branches. The authorized capital of the company is \$1,000,000, and power is given to issue bonds to the extent of \$20,000 a mile. The company is empowered to develop electric power, to own elevators, etc., to enter into agreements for leasing or hiring rolling stock, and to amalgamate with the C.P.R., the G.T.R., the Ontario, Hudson's Bay and Western Ry. Co., the Algoma Central Ry., the Canadian Northern Ry. and the Canada Western Ry., or any other railway. (Jan., pg. 21.)

Fraser River Bridge.—We were advised June 4 that pier 4 was about down to its final position, and pier 2, a double pier, had not been started, but as it is a small affair it will give no great trouble. Work on pier 3 has been stopped for the present owing to having struck a nest of logs. This will prevent any further work from being done on it until after the high water has subsided. Construction on the approaches is being rapidly proceeded

with, and work on the superstructure will be begun shortly. (June, pg. 213.)

Great Northern Ry. of Canada.—The repairs to the Grand Mere bridge, which was destroyed by fire early in May, have been completed and through traffic resumed. During the reconstruction of the bridge passengers were transferred across the river in a ferry, a train being run to the bridge on either side of the river.

We were recently advised that nothing definite had been decided as to the construction of additional lines or projected branches for the current season. (Feb., pg. 39.)

Guelph Junction Ry.—W. Bell, President, and other officials recently had an interview with Sir Thomas Shaughnessy, President C.P.R., with respect to the projected extension of the line to Goderich. This extension has been contemplated for a long time, and President Bell states that provided sufficient encouragement is given by the municipalities through which it will pass it will soon be constructed. (May, pg. 147.)

Guelph Ry. Co. (Electric).—By an act passed at the recent session of the Ontario Legislature the title of the company was changed to the Guelph Radial Ry., and it was authorized to extend its line from its present terminus on the Elora road, to Mount Forest, via Elora, Fergus and Arthur; from Guelph to Erin, with other extensions to Puslinch lake and Preston. The company is given power to enter into agreements with other companies and to connect its lines with those of other companies. The company may issue bonds to the extent of \$20,000 a mile, which may be charged on any section of the line as if it were a separate railway. Freight may be carried on all the lines with the approval of the Railway Committee of the Privy Council. The city of Guelph may within six months acquire the line, together with the Puslinch lake property, for \$30,000, subject to the existing debenture debt, or if this right is not exercised authority is given to the council to subscribe for \$25,000 of the company's preference stock. (Mar., pg. 95.)

Halifax and Southwestern Ry.—We were recently advised that the final approval by the Nova Scotia Government of the plans for the line between Halifax and Mahone had not been received, consequently it is impossible to give the exact route which will be followed. Several conferences have recently taken place in respect of the location of the line near Liverpool, and a Government engineering party has been sent out to survey a line from near Port Medway to Brooklyn.

The contract which J. A. Wheaton had for grading near Hubbard's Cove, about 6 1-3 miles has been completed. Angus Sinclair has a contract for grading from Mahone Bay towards Halifax, on the section for which plans have been accepted, which he has sublet as follows: H. Sorette, 5 1-3 miles; J. Cote & Co., 6 2-3 miles; J. G. McDonald & Co., 5 2-3 miles; J. Cote & Co., 2 miles; J. Kennedy, 4 miles; McDonald & Mitchell, 2 miles; N. Nicholson, 2 miles; Henderson & Scott, 10 miles. (June, pg. 214.)

Hamilton and Caledonia Ry. Co. (Electric).—An act was passed at the recent session of the Ontario Legislature extending the time for the commencement of the line authorized from Hamilton to Lake Erie, via Caledonia, and authorizing the construction of a branch from Cayuga easterly to Dunnville. The lines have to be commenced within two years and completed within five years. The title of the company was also changed to the Hamilton, Caledonia and Lake Erie Ry. Negotiations are in progress with the Hamilton city council for a right of way within the city. Considerable objection has been made to the route surveyed by the Company, and the council is trying to arrange an alternative route. (June, pg. 215.)

Hamilton, Grimsby and Beamsville Ry. Co. (Electric).—An act was passed at the recent session of the Ontario Legislature confirming a by-law of the village of Beamsville settling a matter in connection with the right of way granted to the company. (June, pg. 215.)

Hudson's Bay and Pacific Ry.—An act has been passed at the current session of the Dominion Parliament extending the time within which the line from Fort Churchill on Hudson's Bay, to Calgary, Alta., may be commenced, for a period of two years, and the time within which it may be completed for five years from Oct. 1, 1903. (Mar., pg. 95.)

Huntsville and Lake of Bays Ry.—The application of the company at the recent session of the Ontario Legislature for an extension of two years within which work may be commenced, and of five years for the completion of the line, was passed. No railway subsidies having been voted at the recent session, the company's application for one was not successful. (April, pg. 119.)

Huron, Bruce and Grey Electric Ry.—At the recent session of the Ontario Legislature an act was passed changing the name of the company to the Ontario West Shore Electric Ry. Co., and authorizing the construction of additional lines as follows:—From Dunganon, via Lucknow, to Walkerton, Ont.; also to Wingham; and from the Huron-Middlesex boundary to Sarnia. The township of Colborne has passed a bylaw granting \$7,000 towards the construction of this line. (Mar., pg. 95.)

Huron, Erie and Buffalo Ry.—The Dominion Parliament has passed the act applied for at the current session, incorporating a company, consisting of officials of the Pere Marquette Rd., to construct a railway from St. Thomas to the Niagara river. The capital of the company is fixed at \$2,000,000; construction is to be commenced within two years, and power is given to acquire a bridge across the Niagara river. Press reports state that the Pere Marquette Rd. will not construct any extension of its Ontario line, the Lake Erie and Detroit River Ry., but will give its traffic between St. Thomas and the Niagara river, either to the G.T.R. or Michigan Central lines, the reason given for this decision being that there would be no local traffic for an additional line. (June, pg. 215.)

Huron and Ontario Ry.—The act reviving the charter of the H. and O. Ry. Co. has been passed at the current session of the Dominion Parliament, and power given to construct an extension of the projected line from a point between Bradford and Shelburne, Ont., to Toronto. Construction is to be commenced within two years, and power is given to amalgamate with any railway company in Canada. (June, pg. 215.)

Intercolonial Ry.—Work has been commenced at the Three Mile House grading for the double track between Richmond and Rockingham, N.S. Reid and Archibald are the contractors.

A number of additional sidings are being constructed at Point Tupper, N.S., and also at a number of points in New Brunswick.

The 100 lb. rails laid on the uncompleted Chignecto Marine Ry. have been purchased by the I.C.R., and are being used to replace light rails on the line near Campbellton, N.B.

Press reports state that 15 miles of new fencing will be put up on the St. John division during the year.

It is reported that about 1½ miles of line between St. John, N.B., and Jardine's bridge will be double tracked.

Construction will, press reports state, be resumed at Gilbert's Island yard, St. John, early in July. The principal work to be done to complete the yard is tracklaying and ballasting.

Forest fires in Quebec province are responsible for the burning of the stations at Ashton Jct. and Forestdale.

A train service was put in operation June 22 on the new branch from the main line at Riviere Ouelle station to St. Denis wharf, on the St. Lawrence, about $6\frac{1}{4}$ miles. The steamer Admiral, lately on the Baie des Chaleur route, will make several trips a day between St. Denis wharf and Murray Bay. The new branch and the steamer service gives a short route between Montreal and Murray Bay. Hitherto Murray Bay has been reached by the Richelieu and Ontario Navigation Co.'s steamers only. (June, pg. 215.)

Interprovincial and James Bay Ry.—The Dominion Parliament passed an act at the current session extending until May, 1905, the time within which construction on the projected line from Lumsden's Mills, on the Kippawa branch of the C.P.R., to Des Quinze river, Que., may be commenced, and until May, 1910, the time within which the line may be completed. (April, pg. 119.)

James Bay Ry.—Press reports state that a good line from Parry Sound, Ont., has been located as far as Deer Lake.

The Joliette and Lake Manuan Colonization Ry. has been incorporated at the current session of the Dominion Parliament to construct a railway from Joliette to Lake Manuan, Que., and to carry on a general navigation business on any navigable waters reached by its line. It may enter into agreements with the C.P.R., the Great Northern Ry. of Canada, or the Montreal Terminal Ry., by which its line may be leased or absorbed. The capital of the company is \$1,000,000, and it may issue bonds to the extent of \$25,000 a mile. Construction is to be commenced within two years, and completed within five years. (May, pg. 149.)

Keewatin and Ontario Ry.—The application of D. C. Cameron, M.P.P., Rat Portage, Ont., E. T. Carter, J. Alexander, R. F. Lord and G. H. Worthington, at the recent session of the Ontario Legislature, for the incorporation of a company to construct a railway from the western boundary of Ontario to Rat Portage, and thence to the mouth of the Albany river, with power to construct a number of branches, was withdrawn by the promoters. (May, pg. 149.)

Kingston and Frontenac Ry.—Jas. Gillies, Carleton Place, Ont.; Jno. S. Gillies, A. E. de Renzy, McNab township, and A. McLellan, Ottawa, were the applicants for incorporation with this title at the recent session of the Ontario Legislature. They are interested in extensive marl deposits around Loughboro lake, and propose to construct a railway, to be operated by steam or electricity, from Kingston to the marl pits, and from the lake at the pits to a junction with the Kingston and Pembroke Ry. It is also proposed to operate steamers on the lake. Preliminary surveys for the railway are reported to have been made by Mr. Mitchell, a Kingston engineer. (June, pg. 215.)

Kingston and Gananoque Electric Ry.—The act of 1895, incorporating the Kingston and Gananoque Electric Railway Co., was revived at the recent session of the Ontario Legislature. The provisional directors named in the new act are: J. M. Campbell, C. E. Britton, E. L. Atkinson, W. J. Gibson, J. C. Judd, J. B. McArthur, C. J. Sewell. The company may issue bonds to the extent of \$20,000 a mile, and may make arrangements for running powers, etc., with the C.P.R., the G.T.R., or the Brockville, Westport and Sault Ste. Marie Ry. The title of the company was changed to the Kingston, Gananoque and Perth Electric Ry. Co., and its powers so far as the operation of a telephone line are concerned were limited to the operation of its railway. (May, pg. 149.)

Kingston and Pembroke Ry.—An extension of time for a further period of five years



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was granted at the current session of the Dominion Parliament for the completion of the additional lines authorized. A deputation from the district asked the Minister of Railways to insist that the proposed line from Sharbot Lake to Carleton Place, Ont., should be completed within a year. (May, pg. 149.)

Klondike Mines Ry.—An act has been passed at the current session of the Dominion Parliament granting an extension of two years for the commencement and five years for the completion of the proposed line from Klondike city to Stewart river, Yukon. (June, pg. 215.)

Kootenay, Cariboo and Pacific Ry.—The Dominion Parliament at its current session passed an act incorporating R. L. T. Galbraith, H. Watt, J. A. Harvey, C. H. Pollen, of Fort Steele, B.C., as a company with this title to construct a railway from Fort Steele, B.C., to a junction with a railway through the Yellowhead Pass. Authority was given to issue bonds to the extent of \$25,000 a mile, and to enter into agreements for the sale or transfer of the line to the C.P.R., the Canadian Northern Ry., or the Kootenay Central Ry. An act was passed at the recent session of the B.C. Legislature giving a provincial charter to the same applicants for a railway between the same points. (June, pg. 215.)

Kootenay Central Ry.—By an act passed at the recent session of the B.C. Legislature the act of incorporation obtained in 1901 is repealed, and a new one given. Power is given to construct a railway from Fort Steele to Elko, and from Fort Steele to Golden, to carry on a telegraph, telephone and express business, to make traffic arrangements with other railways, to promote other companies and to issue bonds to the extent of \$20,000 a mile. The company has also secured an extension of time for the commencement and completion of its line for two and five years, respectively, by an act passed at the current session of the Dominion Parliament. (June, pg. 215.)

Kootenay Development and Tramways Co.—At the last session of the B.C. Legislature an act was passed incorporating a company with this title to construct tramways in the West Kootenay district. Electricity is to be the motive power, and it is proposed to construct the lines on the monorail principle. (June, pg. 215.)

Lake Erie and Detroit River Ry.—Plans are said to have been completed for the construction of a large steel coal chute at Blenheim, Ont. (June, pg. 215.) See Huron, Erie and Buffalo Ry.

Lambton Central Electric Ry.—At the recent session of the Ontario Legislature an act was passed confirming by-laws passed by the townships of Sarnia, Dawn, Enniskillen, Camden, Dresden and the Village of Oil Springs, granting right of way for the company's projected line from Sarnia to Dresden. (April, 1902, pg. 141.)

Lindsay, Bobcaygeon and Pontypool Ry.—An act was passed at the current session of the Dominion Parliament granting an extension of two years for the commencement, and of five years for the completion of the company's projected line from Burketon to Bobcaygeon, Ont. The head office of the company is removed from Lindsay, Ont., to Toronto. Two locating parties have been in the field, one in charge of A. H. N. Bruce, C.E., and the other in charge of A. Brunell, C.E., the office at Lindsay being in charge of J. McCunn, C.E. Trial lines were run between Lindsay and Burketon, on the C.P.R., Montreal-Toronto line, the line between Lindsay and Bobcaygeon having been previously located. The whole work of location was completed June 20, the route passing through Dunsford, between Lindsay and Bobcaygeon; and near Nestleton and Blackstock between

Lindsay and Burketon. The maximum gradient will be 1%, and the maximum curvature 4°. It is expected that construction will be started immediately at several points, as the line is accessible from Scugog river and lake, and from Sturgeon lake for some distance south of Bobcaygeon. H. W. D. Armstrong is Chief Engineer.

An agreement respecting the operation of the line has been entered into between the Lindsay town council, the L.B. and P. Ry. Co., and the C.P.R. (June, pg. 215.)

London, Parkhill and Grand Bend Electric Ry. Co.—O. Baird, J. M. and C. A. Gibbs, A. E. Mullin, A. A. McTavish, Parkhill, Ont., were incorporated at the last session of the Ontario Legislature with this title to operate a railway by any motive power except steam, from Lake Huron, near the boundary of Huron and Lambton counties, to London, via Parkhill. The offices of the company are to be at Parkhill, and the line may be constructed in sections: from Grand Bend to Parkhill, from Parkhill to Poplar Hill, and from Poplar Hill to London. The capital is fixed at \$100,000, of which \$40,000 is to be applied to the first section, and \$30,000 to each of the two other sections; and bonds to the extent of \$20,000 a mile may be issued. Connection may be made with other lines, and agreements respecting running powers made.

The Macleod, Cardston and Montana Ry. Co. was incorporated at the current session of the Dominion Parliament. It was given power to issue \$1,000,000 of capital stock and bonds to the extent of \$25,000 a mile of its lines and branches, and to amalgamate with the C.P.R., or with any other railway which runs to the International boundary. It is also authorized to effect junctions with lines at the U.S. boundary. (May, pg. 149.)

Massawipi Valley Ry.—In the action recently brought by this company against J. B. Reed, the Dominion Supreme Court has decided that the company is the proprietor of the lands between the railway fence and the Massawipi river and all construction built by Reed on the west half of the river will be demolished, subject to compensation from the railway company for the actual value of the construction.

Massey Copper Mines.—The spur line from Massey station on the C.P.R. Sault Ste. Marie branch is being constructed by the Massey Station Mining Co. (Ltd.). It commences 500 ft. west of Massey station, and runs to the mines, about 3 miles. The line is being constructed by the company, under the superintendence of Jos. Errington. It is expected that it will be completed about the end of July.

Metropolitan Ry.—The York county council recently passed a resolution suggesting that the company should instal a telephone service in connection with the operation of the line.

Michigan Central Rd.—The St. Thomas, Ont., city council is conferring with the officials of the line respecting the construction of a subway at the Ross st. crossing, and for grade crossings of the company's tracks at Elgin and William streets, for the electric railway owned by the city.

Press reports state that plans have been prepared for the construction of a new station at Gross Isle, Mich., at a cost of \$6,000.

Plans have been filed in the U.S. showing a proposed line to connect the tracks of the Toledo, Canada Southern and Detroit, and Detroit, Delhay and Dearborn divisions, with crossings of the Lake Shore and Michigan Southern and Wabash lines in Wayne county, Mich. (April, pg. 119.)

Middlesex and Elgin Interurban Ry. (Electric).—The application made at the re-

cent session of the Ontario Legislature on behalf of this company to enable it to amalgamate with any other similar company, to acquire stock in similar companies, and to enter into an agreement with the St. Thomas city council, for running rights over the corporation's electric railway, was withdrawn. (May, pg. 149.) See also Southwestern Traction Co.

Midland Terminal Ry.—J. J. Drummond, Midland, Ont.; F. Leeming, Brantford, Ont.; P. Freyseng, Toronto; C. E. Gudewill, R. Wilton, A. K. Fisk, G. E. Drummond, Montreal, were incorporated at the recent session of the Ontario Legislature with this title for the purpose of constructing a railway from Midland to the G.T.R., near Penetanguishene, thence westerly and southwesterly to Perkinsfield, on the G.T.R. The capital of the company is \$500,000, and bonds to the extent of \$20,000 a mile may be issued. Agreements may be made with other companies respecting the hiring or leasing of rolling stock, and the company may enter into agreements with the G.T.R., the C.P.R., the Canada Atlantic Ry., the Manitoulin and North Shore Ry., and the Intercolonial Ry. as to connections, running powers, etc. The line, it is said, is being promoted in the interests of some of the people associated with the Consolidated Lake Superior Co. (May, pg. 149.)

Minnietakie, Lac Seul and Albany Ry.—J. Sykes, H. Holdroyd, Glen Williams, Ont.; W. C. Young, Brampton, Ont.; H. W. Selby, Dinorwic, Ont.; W. R. Payne, J. Porter, J. H. Hall, W. H. Wallbridge, J. Shilton, W. J. Elliott, Toronto, were incorporated at the recent session of the Ontario Legislature, with this title to construct a railway from Dinorwic, on the C.P.R. transcontinental line, to Lake Minnetakie, thence to Lac Seul and via Lake St. Joseph to Fort Hope, on the Albany river, with power to construct branch lines. The capital stock of the company is fixed at \$1,000,000, and power is given to issue bonds to the extent of \$20,000 a mile. The line may be constructed in sections, and agreements may be made with the C.P.R. for the operation of the line, or for amalgamation. (Mar., pg. 95.)

Montreal and Southern Counties Ry. (Electric).—A. J. de B. Corriveau is negotiating with the G.T.R., with a view of obtaining an entrance into Montreal over the Victoria Jubilee bridge, for the system of electric railways he is promoting. It is reported that the Montreal Street Ry. or the Montreal Park and Island Ry. has a charter right to cross the bridge, but Mr. Corriveau states that these rights have lapsed. (June, pg. 217.)

Montreal Terminal Ry. (Electric).—A car service was placed in operation June 3, on the line in the city recently completed by this company. Coming down Cadieux st., the cars turn at the Drill Hall, go up City Hall ave. and across a trestle below St. Norbert st. to Cadieux st. once more, then northward and eastward through Hochelaga ward, down to the tracks leading to Bout de l'Isle. (June, pg. 217.)

Morrissey, Fernie and Michel Ry.—The act of incorporation applied for at the recent session of the B.C. Legislature was passed, with the construction powers applied for therein. (June, pg. 217.)

Nepigon Iron Range Ry.—H. A. Wiley, J. T. Horne, W. F. Langworthy, S. A. Marks and H. Cassels, are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from the northwest corner of Nepigon bay, on Lake Superior, to Black Sturgeon bay, on Lake Nepigon, by way of Black Sturgeon river and lake. (April, pg. 120.)

Nepigon Lake.—At the recent session of the Ontario Legislature a resolution was passed authorizing a transfer of the subsidy

of \$3,000 and 5,000 acres of land a mile, granted for the construction of the Thunder Bay, Nepigon and St. Joe Ry., to any company undertaking to construct a line from the C.P.R. to Lake Nepigon. The T.B.N. and L.St.J. Ry. was projected from Port Arthur to Lake St. Joseph, via Lake Nepigon, but beyond making some preliminary surveys

nothing has been done. In 1902 a subsidy was granted to the Nepigon Ry. Co. in respect of 14 miles of railway to open up some pulp limits. An arrangement was made to lease the commercial fishing rights in Lake Nepigon to the Canada Fish Co., one of the conditions being that a railway, 40 miles in length, should be constructed from the lake

to the C.P.R. at Nepigon station. It was stated at the time the contract was made that this line would be constructed, as the daily papers put it, "without costing the country a cent." In moving the resolution transferring the subsidy the Commissioner of Public Works said the Fish Company had undertaken to build a road by the terms of its charter, but it

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was not to be expected that it would do so without assistance. (Jan., pg. 19; Nepigon Ry., April, pg. 120; and Thunder Bay, Nepigon and St. Joe Ry., June, 1901, pg. 177.)

New Brunswick Southern Ry.—A number of trestle bridges between Carleton and Musquash, N.B., were burned out by the recent forest fires. These are being rebuilt, and it was expected that the work would be completed by the end of June. (Nov., 1902, pg. 386.)

New Ontario and Hudson Bay Ry.—An application was made by J. R. MacArthur, J. W. Colt, C. E. Hanson, New York; T. L. Beiseker, Fessenden, N.D.; C. H. Davidson, Minneapolis, Minn.; E. F. Getchell, J. F. Langan, Chicago, Ill.; D. MacArthur, Winnipegosis, at the recent session of the Ontario Legislature for an act incorporating a company with this title to construct a railway from North Bay to New Liskeard, thence northerly and westerly to James Bay, near the mouth of the Mattagami river; and a branch from the Mattagami river to the C.P.R. transcontinental line at Missinaibi. Very extensive powers were asked with a view of developing water powers and colonizing the country to be opened up. The Legislature did not view the proposition with favor, and the bill was not passed. (April, pg. 121.)

The Niagara Grand Island Bridge Co. was granted an extension of time for two years within which to commence and five years within which to complete its projected bridge across Niagara river. (Feb., pg. 44.)

Niagara, Queenston and St. Catharines Ry. (Electric).—The applicants at the current session of the Dominion Parliament for the incorporation of a company with this title are: J. N. McKendry, F. Denton, H. L. Dunn, A. D. Crooks, Toronto; E. J. McIntyre, Niagara, Ont.; R. G. Code, and E. F. Burritt, Ottawa. (June, pg. 217.)

Nipissing and James Bay Ry.—At the current session of the Dominion Parliament an act was passed granting an extension of four years within which to commence and complete its line from North Bay, Ont., to Lake Temagami, and five years to commence and complete the extension from Lake Temagami to Moose Factory. (Feb., pg. 45.)

The Nipissing and Pontiac Ry. Co. was incorporated at the current session of the Dominion Parliament to construct a railway from New Liskeard, Ont., to Lake La Quinze, Que., with branches not exceeding 30 miles long. The capital is fixed at \$1,000,000, and bonds to the extent of \$25,000 a mile may be issued. The company is empowered to carry on a navigation business on the lakes and rivers reached by its lines, and telegraph and telephone lines for the public benefit. Agreements may be entered into with the C.P.R., the G.T. Pacific Ry., or the Temiskaming and Northern Ry., for leasing or amalgamating its lines with either of them. (May, pg. 150.)

The North Lanark Ry. was incorporated by the Ontario Legislature in 1899 to construct a railway from the Kingston and Pembroke Ry., near Mile Lake, to the C.P.R. or the Canada Atlantic Ry., near Arnprior, Ont., and to operate the same by steam or electricity. No construction has been done, and at the recent session of the Ontario Legislature an act was passed changing the location of the terminal points of the projected line. The route now authorized is from Blythfield township to Ottawa, and if the line is to be operated by electricity it may be carried along the public highway. The capital is increased from \$250,000 to \$450,000, and the bonding power is increased from \$10,000 to \$20,000 a mile. The company is authorized to enter into agreements for traffic, for leasing its line, or amalgamating with the Kings-

ton and Pembroke Ry., the C.P.R., the Canada Atlantic Ry., or the Ottawa and New York Ry. The line is to be completed within five years. (April, pg. 121.)

North Shore Ry., Power and Navigation Co.—A contract is reported to have been let to Connolly Bros., for the completion of the nine miles of railway from the Bay of Seven Islands to the falls of the Ste. Marguerite river, the construction of wharves, etc. P. Hume is engineer in charge of the work for the contractors, and Ross & Holgate for the company. (Feb., pg. 45.)

Northwest Coal and Coke Ry. Co.—F. J. Stamford, F. and J. H. Seaman, F. C. Elliott, B. B. Mighton, Nelson, B.C.; and C. E. D. Wood, Macleod, Alta., were incorporated at the current session of the Dominion Parliament with this title to construct a railway from Bull Park to the C.P.R. Crow's Nest Pass line near Cowley, Alta. The capital was fixed at \$300,000, and power was given to issue bonds to the extent of \$20,000 a mile. Authority was given to lease or sell the line, when constructed, to the C.P.R. or any other company. (May, pg. 150.)

Nova Scotia Eastern Ry.—Press reports state that survey parties are in the field going over the route of this projected line. (May, pg. 150.)

Nova Scotia Southern Ry.—H. T. Ross, of Bridgewater, N.S., has been appointed a commissioner by the Dominion Government to make enquiry and report to the Government respecting claims due by any person, firm or corporation in connection with the construction or unfinished construction of this railway. A good deal of construction was done on this line between Shelburne and New Germany, including grading, bridge building and track laying, and clearing and grading between Liverpool and Indian Garden during 1900. The line was not finished, and in 1902 passed under the control of Mackenzie, Mann & Co., who have under construction a section from New Germany to Caledonia. The object of the commission is to clear up the affairs of the old company. (Feb., pg. 45.)

Ontario Electric Ry.—At the recent session of the Ontario Legislature an act was passed authorizing the organization of the company, as soon as 10% of the capital has been paid up. The company is authorized to construct a line from Toronto to Cornwall, Ont. (May, pg. 150.)

Orford Mountain Ry.—The final line located for the extension of this line from Kingsbury to opposite Windsor Mills, Que., is 9¼ miles long, but an even 10 miles were located carrying the line three-fourths of a mile beyond Windsor Mills. Plans are being prepared, and we were advised on June 13 that a contract had not been let. The gradients are easy, with the exception of 1½ miles, the gradient on which is 69 ft. to the mile, while the maximum curvature is 7°. H. C. Cleveland is Chief Engineer. (June, pg. 217.)

Ottawa, Northern and Western Ry.—By an act passed at the current session of the Dominion Parliament the Ottawa, Northern and Western Ry. has been granted an extension of two years for the commencement, and five years for the completion of the lines authorized to be constructed by the Pontiac and Pacific Jct. Ry. and the Ottawa and Gatineau Colonization Ry., now amalgamated under the above title.

We were advised, June 9, that track on the extension of the old Ottawa and Gatineau Colonization Ry. had been laid from Gracefield for 10 miles, to a point two miles up Blue Sea lake. A steam shovel was at work in the ballast pit 4 miles north of Gracefield. Ballast was being distributed, a few low dumps were being made up, and the lift was just about started. Tracklaying was being

discontinued for a couple of weeks to allow a heavy rock cut to be completed, just ahead of the point reached by the steel. About two-thirds of the grade beyond the rock-cut to Maniwaki had been completed, and work was being rushed on the balance. Stations and tanks are being located and construction on these was expected to be commenced on an early date. The fencing of the line has been commenced from Gracefield. The contract for the greater portion of the grading was sublet by H. J. Beemer, the general contractor, to D. R. McDonald & Co. (June, pg. 217.)

Pacific Northern and Eastern Ry.—At the last session of the B.C. Legislature an act was passed incorporating J. Irving, H. F. Bullen, and F. B. Gregory, Victoria, B.C., as a company with this title to construct a railway from Hazelton to the northern boundary of B.C., near Teslin lake, and from Hazelton to the eastern boundary of the Province via Peace river or Pine river pass. (June, pg. 217.)

The Pacific Northern and Omineca Ry. Co. was granted an extension of time for two years within which to commence its authorized line of railway, at the recent session of the B.C. Legislature. F. S. Barnard, J. Irving and J. A. Mara are directors. (Feb., pg. 45.)

Pere Marquette International Bridge Co.—The Dominion Parliament has passed an act incorporating a number of officials of the Pere Marquette Rd. with this title, for the purpose of building a bridge over the Detroit river at Amherstburg, Ont., to a point in Michigan. The construction of the bridge is not to be commenced until the U.S. authorities have approved of the project; and the bridge has to be commenced within two years, and completed within five years, after such approval. Power is given to connect with lines in Canada, and to amalgamate with other companies for the erection of the bridge. The capital is fixed at \$500,000, and bonds to the extent of \$1,000,000 may be issued. (June, pg. 217.)

Pere Marquette Rd.—In connection with the projected extension of the P.M. Rd. into Chicago, and of its Canadian connection, the Lake Erie and Detroit River Ry., from St. Thomas to the Niagara river, Ont., press reports state that arrangements have been perfected for terminals in Chicago, Ill., and Buffalo, N.Y. A company—the Marquette Construction Co.—has been incorporated in New Jersey to construct the line from New Buffalo to Hammond, Ind., 20 miles, which will give the Chicago connection. Other press reports state that the St. Thomas-Niagara river line will not be constructed for some time at least, but that arrangements will be made for trackage rights either over the Michigan Central Rd. or the G.T.R. See also Huron, Erie and Buffalo Ry., Sarnia, Petrolia and St. Thomas Ry. and Lake Erie and Detroit River Ry.

Prince Edward Island Ferry Co.—H. C. Read, Sackville, N.B.; Hon. P. Poirier, Shediac, N.B.; E. B. Williams, G. E. Hughes, Charlottetown, P.E.I.; B. F. Pearson, Halifax, N.S., are applying at the current session of the Dominion Parliament for an act incorporating a company with this title to operate a steam ferry between New Brunswick and Prince Edward Island. In carrying out the ferry project the company may lease and operate lines of railway to connect its ferries with the Intercolonial Ry. at Shediac and Truro, or at either place, and is given power to acquire the line of the New Brunswick and Prince Edward Island Ry., and the charter of the Shediac and Coast Ry. Co., and may enter into agreements with these companies, and with the I.C.R. for leasing or selling its lines or undertaking to them. (April, pg. 121.)

Prince Edward Island Ry.—A survey is reported to have been recently started by T. May, C.E., with a view of doing away with a curve at Milton. Press reports state that the work will be done this year. (June, pg. 217.)

Quatsino Ry. The act incorporating a company with this title applied for at the recent session of the B.C. Legislature was granted. In addition to constructing the railway the company may carry on a navigation business, and may enter into arrangements with other railways for amalgamation or the operation of its line. (June, pg. 217.)

Quebec and New Brunswick Ry.—At the current session of the Dominion Parliament an act was passed extending the time for the completion of the projected line from Quebec to Conners, N.B., for a further period of five years, and the company was authorized to construct a bridge over the St. John river at Conners within five years after the U.S. authorities had approved of bridging the river. The company is authorized to amalgamate with any U.S. company incorporated to construct a bridge and connecting railways over this point. (Feb., pg. 45.)

Quebec Bridge.—Work has been commenced in connection with the erection of the superstructure of this bridge over the St. Lawrence river. The work now going on is only of a preliminary character. (April, pg. 121.)

Quebec, Saguenay and Gulf of St. Lawrence Ry.—Jas. and Geo. Clarke, of New York city; Jno. and Wm. Clarke, of Toronto, and Thos. Meaney, of Quebec, were incorporated with this title by an act passed at the current session of the Dominion Parliament to construct a railway from the Bay of Seven Islands to the Saguenay river between Lake St. John and Tadousac, thence to Quebec. Power is given to amalgamate with the C.P.R., the G.T.R. or the G.T. Pacific Ry.; to arrange with express companies for the operation of an express service, and to own and operate steamships. It may also enter into an agreement with the North Shore Power Ry. and Navigation Co. for the use of any railway line belonging to it. The company may issue bonds to the extent of \$30,000 a mile on its railway, and also bonds for the construction of steamers. (May, pg. 151.)

The Red Deer Valley Ry. and Coal Co. is applying for an act at the current session of the Dominion Parliament reviving the act incorporating the company, authorizing the changes on the route and extensions of which notice was given; granting to Dec. 31, 1903, for the commencement of the first section of the line from Calgary, Alta.; and to 1905 for its completion, and giving until 1907 and 1912 for the commencement and completion of the extension to a point between Fort Pitt and Battleford, Sask. The act has passed the House of Commons, and the Minister of Railways stated that the revival of the company's powers did not give any title to the land grant which was originally voted. (Feb. pg. 46.)

Regina and Hudson's Bay Ry.—The application for the incorporation of a company with this title has been granted at the current session of the Dominion Parliament. (May, pg. 151.)

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Reid Newfoundland Co.—The new freight sheds under construction at St. John's, Nfld., press reports state, are situated east of the bridge at the new terminus. The shed for outwards freight will be 200 ft. long by 35 ft. wide, and that for inwards freight will be

175 ft. long by 46 ft. wide; while the office building, 30 ft. by 35 ft., will be situated between the two buildings.

The trestle work over North river at Clark's beach, press reports state, is to be done away with, and will be replaced by a steel

Niagara River Line

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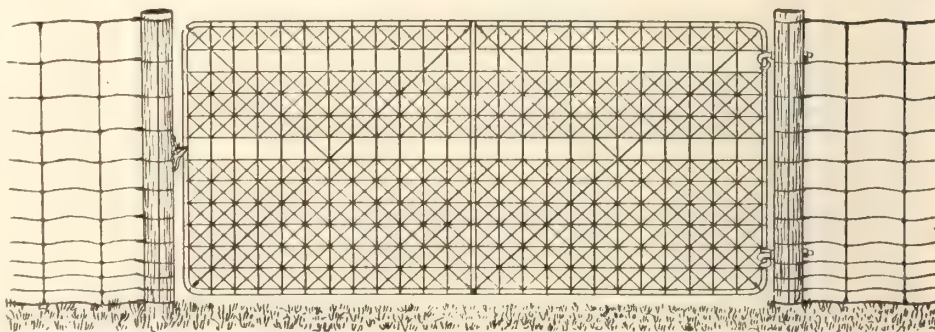
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bridge of two 60-ft. spans on stone abutments.

We were advised, June 8, that the surveys for the construction of a branch from near Holyrood to some talc deposits were going on, but that no definite arrangements had been made as to construction. (June, pg. 217.)

Restigouche and Western Ry.—A press report quotes T. Malcolm, the promoter of this New Brunswick railway, as saying in Fredericton, June 20, that construction would be commenced within ten days thereafter, and that 1,800 men would be employed on the line. (June, pg. 217.)

The Rocky Mountain Ry. and Coal Co. is applying at the current session of the Dominion Parliament for an act extending for two years the time within which construction may be started, and for five years, the time within which the line may be completed. The provisional directors, to replace those named in the original act of 1891, are: Hon. J. Costigan, Ottawa; J. N. Greenshields, K.C., Montreal; Hon. T. H. McGuire, W. R. Hull, J. G. Young, Calgary, Alta. (Feb., pg. 47.)

Sandwich, Windsor and Amherstburg Ry.—At the recent session of the Ontario Legislature an act was passed confirming an agreement made with the Windsor city council respecting running rights in the city, and authorizing local municipalities to grant exemption from taxation to the company. The City Ry. Co., of Windsor (Ltd.), which is under the same management as the S., W. and A. Ry. Co., is a party to the agreement respecting rights in Windsor. (June, pg. 218.)

Sarnia, Petrolia and St. Thomas Ry. Co.—J. L. Englehart, W. English, G. G. Moncrieff, Petrolia, Ont.; D. Milne, F. F. Pardee, Sarnia, Ont., were incorporated at the recent session of the Ontario Legislature with this title to construct a standard gauge railway from Sarnia to Petrolia, thence to St. Thomas, Ont. The capital of the company is fixed at \$1,000,000, and bonds may be issued to the extent of \$20,000 a mile of single track, \$10,000 a mile additional for double tracking and \$5,000 a mile for equipment. (April, pg. 121.)

Sarnia Street Ry.—An act was passed at the recent session of the Ontario Legislature confirming an agreement between the township of Sarnia and the company for a franchise, and extending the time for constructing the uncompleted sections of the line. (Feb., pg. 47.)

Sherbrooke, Que., Street Ry.—Press reports state that the additions being made to the company's power plant will increase its available power by 50%. At a special meeting of the council, held June 5, a resolution was passed authorizing the laying of a double track on Bridge and Pine streets on certain conditions, which the company has declined to comply with. (Feb., pg. 47.)

Southwestern Traction Co. (Electric).—At the recent session of the Ontario Legislature an act was passed authorizing the company to amalgamate with the Middlesex and Elgin Interurban Ry. Co. under this title, increasing its capital to \$1,500,000. Authority is given to construct a line from Aylmer, via St. Thomas, to London, Ont., with a branch from St. Thomas to Port Stanley, in addition to the lines previously authorized to be constructed. The additional lines to be constructed are those for which the M. and E. I. Ry. Co. had secured franchises.

The company has constructed a line from London to Lambeth, and expects to place it in operation on an early date. (Feb., pg. 47.)

The St. Joseph Transportation Co., a reference to which will be found on pg. 253,

under Ontario and the Great Lakes, is applying at the current session of the Dominion Parliament for an act of incorporation, authorizing it, among other things, to construct a single or double-track railway, not less than 3-ft. gauge, along its canal, with branch lines not exceeding 15 miles in length, to towns and villages within 15 miles of the canal, and to operate the same by electricity, steam or any other motive power.

St. Mary's River Ry.—An act was passed at the current session of the Dominion Parliament authorizing the extension of the line from Spring Coulee, Alta., to Cardston, Mountain View, and any point in range 1, west of the 5th meridian; from between Spring Coulee and Mountain View to the C.P.R. between range 2, west of the 5th meridian, and range 27, west of the 4th meridian, and from Stirling easterly to range 4, west of the 4th meridian, between the C.P.R. and the International boundary; with branches not exceeding 30 miles in any one case. The head office of the company is changed to Montreal, and power is given to issue bonds to the extent of \$15,000 a mile. (Feb., pg. 47.)

St. Thomas St. Ry.—By an act passed at the recent session of the Ontario Legislature, the rights and powers of the St. Thomas Street Ry. Co. are vested in the city, and the council is authorized to issue debentures for \$15,000 for repairs to the line and its equipment, and for the purchase of additional cars, etc. Authority is also given to extend the line from St. Thomas to Port Stanley, and to issue in respect of such extension debentures to the extent of \$15,000 a mile. Authority is also given to enter into agreements with other electric railways, and to sell the lines on the passing by the citizens of the necessary by-laws. (April, pg. 121.)

Stratford Radial Ry. (Electric).—H. M. Sloan, J. Jamieson, G. Sutherland, Chicago, Ill.; R. Paxton, Port Dover, Ont.; J. E. Ferguson, Ingersoll, Ont., were incorporated by an act passed at the recent session of the Ontario Legislature with this title to construct an electric railway in Stratford with branches to Mitchell, St. Marys, Embro and other points. Power is given to enter into agreements with other companies for running arrangements, or to amalgamate with them. The capital of the company is fixed at \$500,000, of which \$200,000 is to be devoted to the lines in Stratford and the Mitchell branch, and \$150,000 each to the Embro and St. Marys branch lines. Bonds to the extent of \$20,000 a mile may be issued. The lines are to be commenced in two years and completed in five years. (April, pg. 121.)

Suburban Rapid Transit Co. (Electric).—The Winnipeg city council has passed a resolution extending the time for the completion of the line from city limits to Sturgeon Creek for four months from July. The reason given for the delay is that the rails cannot be delivered until Aug. (May, pg. 151.)

Sudbury, Copper Cliff and Creighton Electric Ry.—N. T. Hillary, J. S. Gill, D. Baikie, R. Martin, W. H. Mulligan, J. McLeod, J. Purvis, R. H. Arthur, Sudbury, Ont.; D. L. McKinnon, J. R. McKinnon, W. C. Kilpatrick, J. Price, Copper Cliff, Ont., have been incorporated at the recent session of the Ontario Legislature with this title to construct an electric railway from the boundary of Snider township, Algoma, through Copper Cliff and Sudbury, and the township of McKim, Nipissing. The capital is \$150,000, and bonds to the extent of \$15,000 a mile may be issued on each five-mile section as it is completed. (April, pg. 122.)

Temiskaming and Northern Ontario Ry.—When grading was started in 1902 on this line it had not been decided whether it would join existing lines at North Bay or Nipissing

Jct., consequently the contractors began work about three miles out of North Bay. Since the arrangement for terminal facilities at North Bay was completed with the C.P.R., right of way has been acquired and the grade from the C.P.R., east of North Bay, to the point where work was started in 1902, completed. An official ceremony took place June 15, at the point of junction with the C.P.R., when the first spikes were driven. The Mayor of North Bay drove the first one, and H. Doheny, one of the sub-contractors, the second. Tracklaying was proceeded with immediately thereafter, and press reports stated, July 2, that 10 miles had been laid. A work train is in operation. (June, pg. 219.)

Tillsonburg, Lake Erie and Pacific Ry.—At the recent session of the Ontario Legislature an act was passed confirming a by-law of the town of Ingersoll, voting \$20,000 as a bonus to this company, in connection with the extension of its line from Tillsonburg to Ingersoll.

The Dominion Government has been asked to vote a subsidy for an extension of the line from Ingersoll to Collingwood, via Embro and Stratford. (June, pg. 219.)

Toronto and Hamilton Ry. (Electric).—The application to the Dominion Parliament at its current session for the incorporation of a company to construct an electric railway from Toronto to Hamilton and with power to connect with or acquire other electric railways, is meeting with considerable opposition. The cities of Toronto and Hamilton, as well as other municipalities are opposing the bill on various grounds, and numerous amendments are being made. The bill is understood to be in the interests of the Toronto Ry. Co., and it is claimed that the powers of amalgamation asked for by the T. and H. Ry. would enable it to absorb the Toronto Ry., the Hamilton Street Ry. as well as the other electric railways round Toronto, Hamilton and St. Catharines, thereby interfering with the rights of the Province and the municipalities to control speed, etc. (June, pg. 219.)

Toronto, Hamilton and Buffalo Ry.—At the recent annual meeting it was arranged that during the current season considerable work will be done in the way of filling in trestle bridges and improving embankments east of Hamilton, Ont. (April, pg. 122.)

Toronto and Mimico Ry.—At the recent session of the Ontario Legislature an act was passed changing the name of the Toronto and Mimico Electric Ry. and Light Co. to the Toronto and Mimico Ry. Co., and authorizing an extension of its line from Long Branch to Hamilton, and to connect its lines with those of the Toronto Suburban Ry., the Toronto Ry., the Hamilton Street Ry., the Hamilton Radial Electric Ry. and the Hamilton, Grimsby and Beamsville Electric Ry., and to enter into arrangements with these companies for amalgamation, lease or purchase of their lines in whole or part, or for the lease or purchase to either of them of any portion of its lines. (June, pg. 219.)

Winnipeg Electric Street Ry.—We were recently advised that the daily press reports that extensions to East and West Kildonan were projected, were premature, as the matter had not been considered by the company, and that no decision had been reached as to any other extension. (May, pg. 153.)

Vancouver, Victoria and Eastern Ry.—Contracts are reported let to Siems & Shields, St. Paul, Minn., for the branch from Grand Forks to Phoenix, B.C., 24 miles, and to P. Welch, Spokane, Wash., for the spur line from Grand Forks to the Granby smelter. Surveys are also reported to have been made for a line from Phoenix to the Okanagan river, B.C., 123 miles. (June, pg. 219.)

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Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
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Vancouver, Westminster, Northern and Yukon Ry.—An official recently denied press reports to the effect that construction had been suspended on this line near New Westminster, B.C., and the contractor, K. Ffolliott says the work is being pushed ahead, there being about 400 men at work. (June, pg. 219.)

G.T.R. Betterments, Construction, Etc.

Whitby Station.—A new station is under construction at Whitby, Ont., about midway between the present station and the center of the town.

Don Yard Improvements.—In connection with the improvements at the Don yards, Toronto, the two old single track bridges have been removed outwards to be used for switching tracks, which will enable the whole of the switching to be clear of the main line. A new double track bridge has been constructed for the main line tracks. The extension of the tracks for the switching system to Queen st. is under way, and it is proposed that all the switches will be connected with these lines so as to relieve the main line of all switching operations. It is contemplated to extend these switching lines to York. (Dec., 1902, pg. 405.)

Toronto Freight Sheds.—Possession of the land for the new freight sheds between John and Simcoe streets was taken July 1, and arrangements are in progress for commencing work thereon. The plans are all complete, and only one or two small matters require to be adjusted between the company and the city council before a start can be made on construction. (June, pgs. 195 and 201.)

Hamilton Freight Yards.—Work is in progress at the new freight yards at Hamilton. The site includes the entire block bounded by Canon, Elgin and Robert streets, and Ferguson ave., and one-half of the two blocks running to Barton st., a total length of 1,188 ft. The yard will be approached by a switch from near Kelly st., and there will be three tracks the whole length of the yard, then the freight house, a transfer platform, then two tracks, and the rest of the yard will be laid out in tracks in pairs with roadways between for loading or unloading by carloads. The freight shed and offices will run through from Barton st. to Cannon st., and will have a width of 40 ft., the office building having a depth of 85 ft. 3 in., and the freight shed proper a depth of 1,103 ft. The office building will have on the ground floor the office for the working of the yard, while the agents' and clerks' offices will be on the first floor. The whole of the freight work will be concentrated at the new yards, and the present freight sheds near Stuart st. station will be utilized for freight storage purposes. (June, pg. 195.)

Hamilton Improvements.—Following up the agreement between the company and the city council relative to construction of some overhead bridges and the connection of the main line and the old Northern and Northwestern Ry. at Strachan st., plans of the bridges and estimates of the cost have been submitted by the G.T.R. to the city council. As soon as the city approves of the plans and estimates the work will be proceeded with. Under the terms of the agreement the city has to pay a proportion of the cost of the bridges. (June, pg. 195.)

Brantford Deviation.—The improvements at Brantford and Paris, Ont., which are being worked out in connection with the carrying of the Niagara-Sarnia main line through Brantford, are to be on a very extensive scale. The plans for the whole of the works contemplated have not been finally adopted. One piece of work which is being carried out is

the lowering of the level of the Harrisburg-Tillsonburg line, and the raising of the main line, so as to do away with the crossing of the tracks in Brantford. (June, pg. 196.)

Stratford Shops and Station.—Local press reports quote Manager McGuigan as having recently stated that the company proposes spending \$1,000,000 or \$1,500,000 upon improvements in that city. What these improvements will be has not been definitely settled, but it is understood that there will be a new passenger station and offices, and extensive additions to the shops. Several properties have recently been acquired north of the Buffalo-Goderich tracks, giving the company possession of a sufficient area to build a large and modern station building, and to rearrange the tracks. (June, pg. 196.)

Sarnia-Kingscourt Jet. Double-track.—A contract has been let for double-tracking the line from Kingscourt Jct. to Sarnia Tunnel, 21.39 miles. The grading will be done by Ross & McRae, and the ballasting and tracklaying will be done by the regular employees of the road department. It is expected that the grading will be completed and double-track laid from Wyoming to Sarnia Tunnel, 13.62 miles, this year.

Grand Trunk Pacific Ry.—The proposals of the Dominion Government in reference to the aid to be given the G.T.P.Ry. Co. have been foreshadowed by the Ottawa correspondent of the Toronto Globe, and will, though with some alteration in detail, in all probability be passed. If the plan is carried out as outlined the G.T.P.Ry., while operating what will be practically a transcontinental line, will only own that section of it lying between Winnipeg and the Pacific coast, the line east of Winnipeg being owned by the Government. The proposal is that the Government shall construct a line from Moncton, N.B., via Quebec, to Winnipeg, Man., which will be leased to the G.T.P.R. Co. for 50 years, free for five years, for the net surplus of receipts over working expenses for the second five years, and for 3% upon the cost of construction for the remaining 40 years. Running rights are to be granted to other companies over this section of the line, and the rates to be charged are to be under the control of the Government, but they cannot be reduced to such an extent as will prevent the payment of the rental. The construction of this section of the line will be under the control of a commission appointed by the Government, but whether the work will be done by the commission, or by the G.T.P.R. Co. under contract is not stated. It is reported that the company has 60 survey parties in the field, of whom 10 are said to be working between Quebec and Lake Abitibi, near the Ontario-Quebec boundary. This, however, is not confirmed and no official information in regard to it appears to be obtainable.

In respect of the portion of the line from Winnipeg to the Pacific coast to be owned by the company, the Government proposal is to guarantee the bonds of the company to the extent of 75% of the cost of construction, but not exceeding \$13,000 a mile for the prairie section, and \$30,000 a mile on the mountain section, the length of which is fixed at 500 miles. The capital of the company is to be reduced from \$75,000,000 to \$45,000,000; \$5,000,000 has to be deposited in the Bank of Montreal in cash or approved securities, and as far as possible the materials used in the construction of the line are to be of Canadian manufacture. A majority of the directorate are to be residents of Canada, and it is reported that the British directors will comprise a representative of the Rothschilds, Lord Welby, Sir C. Rivers Wilson and A. Smithers, of the G.T.R., while the Canadian directors will include C. M. Hays, who is to be President, and W. Wainwright, who will be Vice-President.

A Montreal despatch states that Senator Cox, Jas. Ross and others will form a company, which will be entrusted with the construction of the G.T. Pacific Ry. from Winnipeg to the Pacific coast, as well as the line from Moncton to Winnipeg, proposed to be constructed by the Dominion Government. (June, pg. 196.)

Canadian Northern Ry. Construction.

Port Arthur Elevators.—Regarding the additional elevators to be erected, D. D. Mann is reported to have recently stated in Montreal that two more would be built, bringing the capacity up to 7,000,000 bush. We were advised July 6 that the matter was not in a sufficiently forward condition to say whether construction would be gone on with this year. (June, pg. 205.)

Winnipeg Terminals.—The negotiations between the company and the city council respecting the erection of a station and hotel are still in progress, and consequently nothing definite can be said in regard to the plans of either, or when work is likely to be commenced. (June, pg. 205.)

Branch Through Springfield.—A deputation from the municipality of Springfield, Man., waited on officials of the C.N. Ry. recently, asking that the route of the projected line to Lac du Bonnet, via Birds' Hill and Tyndall, be changed, so that the line will run through Oak Hammock. Surveys are being made with a view of locating the line in accordance with the suggestions of the deputation.

Branch to Oak Point.—Track is being laid on the old Winnipeg and Hudson's Bay line from Winnipeg to Oak Point, on Lake Manitoba, 53 miles, and the work is expected to be completed during July. (Feb. pg. 51.)

Greenway Southwesterly.—Construction is in progress on this branch from Greenway on the Morris-Brandon branch, southwesterly, 40 miles. (May, pg. 174.)

Carberry to Neepawa.—Construction is being pushed on this 20 mile branch connecting Carberry, Man., with the Neepawa branch line. (June, pg. 205.)

Portage la Prairie.—General Superintendent James recently informed a deputation from the Portage la Prairie, Man., Board of Trade that plans for a new station at that place had been prepared. When the new station is erected the old one will be used as a freight shed.

Portage la Prairie Southwesterly.—Construction is reported to have made considerable progress on the line through the Rosendale district, southwesterly from Portage la Prairie, Man. (June, pg. 205.)

Rosburn Branch.—The extension of this branch from Rosburn Jct. to the western boundary of the province, 80 miles, of which 13.1 miles was completed in 1902, is being gone on with, and will be completed this season. (May, pg. 174.)

McCreary Branch.—Construction on this branch from Neepawa to McCreary has been completed. (May, pg. 174.)

Manitoba Branches.—Of the branch lines which the Western Extension Ry. Co. contracted with the Manitoba Legislature to construct during 1902, track was laid on 27.1 miles, and the grading for a further distance of 23.40 miles was completed in 1902. The unfinished portion of the McCreary branch has been completed, and construction is being gone on with on 160 miles of the other lines authorized. Of the 343 miles of line authorized there are now completed or under construction 212 miles, leaving 131 miles, for the construction of which the Government is authorized to grant an extension of time. The lines on which no work is at present being done are: Emerson, easterly, 20 miles,

six miles uncompleted; Roland or Myrtle to Morden, 20 miles; Minto or Elgin southwesterly, 30 miles; Fairfax to Souris, 15 miles; Hartney to Virden and westerly, 40 miles; Swan River branch, 20 miles.

Prince Albert and Edmonton Extensions.

—The act to give effect to the resolution passed by the Dominion Parliament, authorizing the guarantee of bonds to the extent of \$13,000 a mile for about 620 miles of line on the extension from Grandview, Man., to Edmonton, Alberta; and at the same rate for 100 miles from Prince Albert, Sask., easterly on the extension from Erwood, has been passed by the House of Commons. Provision is made for the control of the rates on the line so aided by the Government or by the railway commission, when appointed; for the granting of running powers over the lines to other companies, and for preventing the sale to the C.P.R. of any of the lines belonging to the C.N.R. In connection with the discussion on the resolutions and the act a return was presented to the house showing the cost of the construction of the two sections of the line to be aided, as estimated by R. F. Tate, Resident Engineer at Toronto, of Mackenzie, Mann & Co., and of C. Schrieber, Deputy Minister of Railways. For the 620 miles of line from Grandview to Edmonton, the esti-

mate of Mr. Tate was at the rate of \$19,143.60 a mile, which includes \$3,000 a mile for equipment, and \$1,467.60 a mile for interest charges during construction and contingencies; while the estimate of Mr. Schrieber was at the rate of \$18,301 a mile, including \$3,000 a mile for equipment, and 10% on the cost of construction for interest charges and contingencies. For the 100 miles into Prince Albert, Mr. Tate's estimate was at the rate of \$19,807.71 a mile, of which \$15,279.74 was for actual construction, while Mr. Schrieber's estimate was \$18,856.83, of which \$14,415.30 was for actual construction, \$3,000 a mile being allowed in each case for equipment, and 10% for interest charges and contingencies. The estimates provide for 60 lb. rails, and for the fencing of the track at \$1 a rod. The estimates for the Grandview-Edmonton extension provide for four crossings of the Saskatchewan rivers at a cost of \$868,000, and on the Prince Albert extension for one crossing of the Saskatchewan river at a cost of \$180,000.

Grand View-Edmonton Extension.—The route from Grand View, Man., to the crossing of the Saskatchewan river is under contract and the grade is covered with men who are pushing work as fast as possible. (June, pg. 205.)

Prince Albert Extension.—The grading to Melfort, on the Carrot river, about 100 miles from Erwood, Sask., is being pushed rapidly, and tracklaying will be gone on with as early as possible. (June, pg. 205.)

Duty on Steel Rails.—In connection with the item appearing in our last issue relating to the duty on steel rails and the imposition of a surtax of one-third of the duty on articles manufactured in any country discriminating in its tariff against Canadian goods which may be imported into Canada, it should be pointed out that steel rails are now admitted free of duty, and will be so admitted until the duty of \$7 a ton becomes operative by proclamation, when the surtax will, as a matter of course, become operative also as against imports from any country discriminating against Canadian produce or manufactures. The surtax, which will be collected on manufactures arriving from Germany and other countries discriminating against Canada after Sept. 30, will then apply to everything upon which the Canadian tariff imposes a duty. It is expected that by Sept. 30 the whole of the railway material for which contracts were made with German firms will have been delivered.

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C.P.R. Betterments, Construction, Etc.

Bridge Contracts.—We were advised June 9 that the contracts reported in the daily press as having been let at the end of April for bridges were greatly exaggerated. Contracts were then let for the superstructure for 44 bridges, 90% of which were short plate girder spans. No bridges of any magnitude are to be built, with the possible exception of one bridge over the St. John river, near Perth Jct., N.B., where three 160 ft. truss spans are to be renewed, with three 167 ft. riveted through lattice spans on existing piers. (May, pg. 179.)

Place Viger Yards.—The company has not concluded its negotiations with the Montreal city council in respect to the conditions upon which some streets are to be closed up, to allow of the extension of the Place Viger yards. (May, pg. 179.)

Northern Colonization Ry.—It was expected that about 16 miles of the grade on the extension of the line from LaBelle, Que., would be completed by the end of June, and D. R. McDonald, one of the contractors, recently stated in Montreal that the whole of the 21 miles to Nominigue would be graded by Sept. 1. The rails, he said, had been delivered, and tracklaying would be commenced on an early date. (June, pg. 205.)

Prescott Improvements.—Extensive improvements are reported to be in contemplation at Prescott, Ont. The passenger station is to be removed to a more central situation and modernized, and the roundhouse will be moved to Oxford. The waterfront will be converted into a long dock for the accommodation of vessels.

London Yards.—A couple of sidings east of Adelaide st., London, Ont., have been extended this year, and it is intended to erect a new oil house. (June, pg. 205.)

North Bay to Fort William.—F. Munro, one of the contractors for the new buildings at North Bay, Ont., recently stated in Montreal that the C.P.R. had a large number of men at work along the north shore of Lake Superior, and is making very material improvements to the line—straightening curves, reducing gradients, lengthening sidings and putting in most substantial turntables and other station facilities. A press report states that the Canadian Construction Co., of Montreal, has a contract for work on the line between North Bay and Sudbury, Ont.

Winnipeg Station and Subway.—The negotiations between the city council and a number of property owners were recently reported to have been completed, and that the necessary agreements had been signed so that the negotiations could be renewed with the C.P.R. respecting the construction of a subway at Main st. and the new station. (June, pg. 205.)

Winnipeg Yards.—Considerable extensions and improvements are being made in the yards at Winnipeg, press reports stating that the accommodation will be increased 50%. There will be about 50 additional tracks laid on the extension of the yard from Beacon st. to the city limits; a new round house for 42 locomotives and a new coaling plant are also contemplated.

Inland Elevator.—We are informed that the question of building a large elevator at Winnipeg or Brandon, Man., in order to save haulage to Fort William during the winter months, after lake navigation is closed, is under consideration, but nothing definite has been arrived at.

Darlingford Southwesterly.—A survey is being made for the construction of a line from Darlingford, on the Pembina branch, southwesterly to Kaleida, Man. Press reports

state that construction will be commenced immediately. (May, pg. 179.)

Glenboro-Lauder Extension.—The projected extension of this branch westerly from Lauder, Man., to Arthur will, Sir Thomas Shaughnessy recently stated, not be gone on with this year, and its construction will be held over for another year, at any rate. (June, 1902, pg. 202.)

Minnedosa, Man.—We are officially informed that the fire at Minnedosa, Man., on May 9, did not destroy the station, as stated in press reports. (June, pg. 205.)

Manitoba and Northwestern Ry.—After a lengthened discussion, extending over several days, before the Railway Committee of the House of Commons, the bill to authorize the company to construct a line from between Yorkton and Prince Albert, Sask., to Battleford, Sask., and thence to Wetaskiwin, Alta., and from Churchbridge to a junction with the Pheasant Hills branch of the C.P.R., near Esterhazy, was withdrawn (June, pg. 205.)

Revelstoke.—Press reports state that with a view to obviate trouble experienced with snowslides every spring, the course of the track will be altered from the south to the north side of Summit lake, west of Revelstoke, B.C. The work will involve the construction of three tunnels and about one mile of track.

Nelson Shops.—It was expected that the foundations for the new machine shops at Nelson, B.C., would be completed early in June, and that the erection of the buildings would be commenced immediately thereafter.

Westminster Section.—It is reported that the track between Westminster Jct. and Nicomin, B.C., 46 miles, is being relaid with heavy rails, of which large quantities have recently been landed at Vancouver.

Tourist Hotel at Victoria.—During the recent visit of Sir Thomas Shaughnessy to Victoria, B.C., an arrangement was made by which the C.P.R. agreed to construct a large tourist hotel at that point. The proposal of the company was to expend \$300,000 in the erection of an hotel of the same standard as the Chateau Frontenac at Quebec, upon the reclaimed lands known as the James Bay enbankment; the city to grant the site free, give exemption from taxes for 15 years, free water, and to construct two new streets. This was approved at the meeting of the C.P.R. board held on Sir Thomas' return to Montreal. The final arrangements are being made by the city council prior to the formal contract being entered into. At the recent session of the B.C. Legislature an act was passed authorizing the city of Victoria to grant a free site for the hotel and give aid towards its construction on the lines indicated in the proposal.

Hampton and St. Martins Ry.—This 30 mile railway, extending from Hampton, N.B., on the Intercolonial Ry., 22 miles from St. John, to St. Martins, 30 miles, has not been operated for some time. Recently a deputation from St. Martins asked the officials of the Central Ry. of New Brunswick to operate the line. On June 4, a meeting was held in St. Martins at which several thousand dollars of stock was subscribed in a company to operate the line, and on June 9, the Attorney-General of New Brunswick had an interview with the Minister of Railways with a view of obtaining the loan of sufficient rolling stock for the line from the I.C.R.

Peterborough and Ashburnham Street Ry.—The Peterborough, Ont., city council has under consideration a proposition for the operation of the street railway. We were recently advised that the negotiations were not closed. (June, 1902, pg. 196.)

C.P.R. Districts and Mileage.

Since the article under this head, on pg. 249, went to press, the Lake Superior division has been divided into two operating districts, instead of three as heretofore. District 1 comprises the main line from Chalk River to Cartier, not including the latter station, 233.2 miles; Sudbury to Sault Ste Marie, 178.9 miles; Mattawa to Temiskaming, 38.8 miles; Kipawa Jct. to Kipawa, 9.2 miles; Sudbury to Blizzard, 5 miles; total, 465.1 miles. C. Murphy, heretofore Superintendent of old district 1, at North Bay, becomes Superintendent of new district 1, with same headquarters.

District 2 comprises the main line from Cartier to Port Arthur, not including the latter station, 514.1 miles. G. Erickson, heretofore Superintendent of old district 3 at Schreiber, has been appointed Superintendent of new district 2, with same headquarters for the present. Dispatching offices at Schreiber and Chisleau.

R. Chapple, heretofore Superintendent of old district 2 at Chisleau, has been assigned other duties.

Hudson's Bay Co.—The important position which this Company occupies in regard to development of Canada may be realized from a study of a map of the Dominion recently issued, upon which the trading posts of the company are marked in red. There are 168 in all, of which only 31 are on lines of railway, the remainder being scattered all over the Dominion at a greater or less distance from the settled parts of the country. There are trading posts from the Atlantic to the Pacific, and from the International boundary on the south to the Arctic ocean on the north. It will be noted that the Company has no posts in the Maritime Provinces, in Quebec, south of the St. Lawrence river, or in what is called old Ontario. The distribution of the posts through the various provinces and territories are as follows: Labrador, 4; Ungava, 9; Quebec, 24; Ontario, 28; Keewatin, 13; Manitoba, 11; Assiniboia, 5; Saskatchewan, 11; Alberta, 9; Athabasca, 19; Mackenzie, 9; British Columbia, 19; Yukon, 7.

Canadian Railway Instruction Institute.—Hugh Miller, who recently resigned his position as G.T.R. agent at Bay City, Mich., after 25 years' uninterrupted service with the company as operator, agent, trick and chief dispatcher, car distributor and assistant trainmaster, has settled in Toronto, where he has established the Canadian Railway Instruction Institute for the purpose of teaching practical railway station work, including telegraphy, standard rules, train dispatching, freight and ticket clerks' work, and agents' duties. The demand for good operators is very brisk on all the railways, and there is an excellent field for an institute where they can be properly instructed.

M. Archibald remains assistant to Mr. Whyte, Engineer of Construction of the Dominion Coal Co. at Glace Bay, N.S., and has not been appointed Engineer of Construction, as stated on page 229 of this issue. Mr. Whyte is away on a short leave of absence, and it is probable the report in regard to Mr. Archibald originated from this cause.

An Ottawa press report states that the commissioners on cattle guards will report that they have been unable to find any guard that will turn cattle from a railway track, and at the same time can be used efficiently and without danger to trains.

W. Mackenzie, President of the Canadian Northern Ry., sailed from New York, July 3, on the S.S. Cymric, for Liverpool.

C. B. Plant has been appointed C.P.R. Superintendent's accountant at Souris, Man., not C. B. Platt, as stated in our last issue.

Beeson's Marine Directory of the North-western lakes for 1903, its fifteenth issue, is now printed by the publisher, H. C. Beeson, Chicago, Ill., which enables a closer attention to be given to details of the publication, and to the inclusion of additional information and illustrations. In the main departments of the directory the information given of vessels trading on the Great Lakes is complete, while the Canadian list is up to date. The record of engines and boilers adds materially to the value of the directory. A valuable addition this year is an inset giving tables of the distances between ports on the Great Lakes, so arranged that the distance from any port to any other port may be readily calculated. Included in the directory are a number of articles of interest to marine men, and an epitome of the decisions in a number of important cases in the Admiralty courts. The price of the directory is \$5.00.

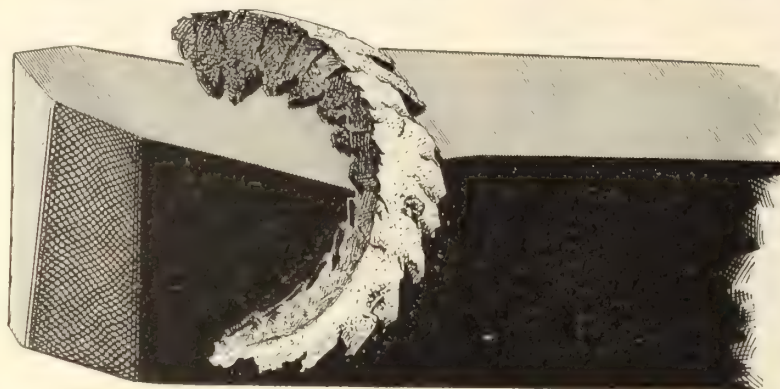
Ben. Webster Folger, who has been appointed General Manager of the Canadian Lake and Ocean Navigation Co., at Toronto, was born at Cape Vincent, N.Y., in 1838. On taking up his residence at Kingston, Ont., he founded the firm of Folger Bros., who control the Kingston, Catarqui and Portsmouth Electric Ry., as well as the gas and electric light works, and who are also the principal stockholders in the St. Lawrence River Navigation Co., and Thousand Islands Steamboat

Co. He was one of the promoters of the Canada Pacific Express Co. in 1880; of the Donnelly Salvage and Wrecking Co., Kingston, Ont.; and was General Superintendent of the Kingston and Pembroke Ry., from 1876 to 1895, and General Manager of the

same line from 1895 until 1902, when it was acquired by the C.P.R.

T. Tait, Chairman of the Board of Railway Commissioners for Victoria, Australia, has reached Melbourne, having travelled overland from Brisbane, Queensland.

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TRANSPORTATION APPOINTMENTS.

Canadian Lake and Ocean Navigation Co.—J. H. Plummer has been elected President, vice A. E. Ames, resigned.

B. W. Folger, of Kingston, Ont., has been appointed General Manager. Office, Toronto.

Canadian Northern Ry.—W. A. Brown, heretofore Superintendent of Winnipeg Terminals and lines West of Winnipeg, is appointed Superintendent of lines East of Winnipeg. Office at Port Arthur.

J. W. Dawsey has been appointed Superintendent of Winnipeg terminals and lines west of Winnipeg.

Canadian Pacific Ry.—J. E. Matthews has been appointed soliciting passenger agent at Charlottetown, P.E.I., not J. T. Matthews, as stated in our last issue.

G. H. Webster, who has been appointed Right of Way Agent, with office at Montreal, will deal with all right of way matters and leases for the Company's properties over the entire System, and secure the registration of all plans, title deeds, etc. The local right of way agents will report to Mr. Webster.

We were recently advised that no one had been appointed as Chief Inspector of Time Service to succeed R. J. E. Scott, resigned. J. J. F. Houghton is temporarily doing the work.

L. O. Armstrong, Colonization Agent, has also been appointed Tourist Agent. He will write up the sporting literature and have charge of camping, canoeing, shooting, fishing and summer resorts.

J. W. Wetmore has been appointed Claims Attorney for the Atlantic, Eastern and Lake Superior divisions. Office, Montreal.

G. E. Graham has been appointed Supervisor of Refrigerator Service and Weighing over the entire system. Office, Montreal.

D. R. Bell, heretofore Superintendent at Moose Jaw, Assa., has been appointed Superintendent of Toronto Terminals for traffic. Office, Union Station, Toronto. The maintenance of track, etc., remains under the jurisdiction of G. Spencer, Superintendent district 1, Ontario division.

F. G. Martyn, Trainmaster district 2, Ontario division, has removed his headquarters from Toronto Jct. to London, Ont.

J. J. Scully has been appointed acting Superintendent district 5, Central division, at Regina, Alta., vice F. Dillinger, on leave of absence.

W. J. Coe has been appointed Storekeeper of the Western division, with headquarters at Calgary, Alta., vice W. A. MacPherson, resigned.

W. L. Darling has been appointed Superintendent's Accountant at Cranbrook, B.C.

The following appointments have been made in connection with the Atlantic steamship service. F. W. Flanagan, General Passenger Agent; H. D. Annable, General Freight Agent; E. Edwards, European Traffic Manager's Assistant, offices, 67 and 68 King William St., London, E.C., Eng. They will report to the European Traffic Manager at London.

Consolidated Lake Superior Co.—G. W. Chance having resigned as Manager of the International Transit Co. at Sault Ste. Marie, Ont., and the Trans-St. Mary's Traction Co. at Sault Ste. Marie, Mich., the duties of the position are being performed by T. J. Kennedy, General Superintendent of the Algoma Central & Hudson Bay Ry. R. Hill continues as Assistant Superintendent of the electric railways. W. O. Thomas continues as Electrical Engineer, and W. B. Rosevear, General Traffic Manager of the A.C. & H.B. Ry., also has charge of traffic matters on the electric railways.

Eastern Steamship Co.—W. H. Price is reported to have been appointed Assistant General Passenger and Ticket Agent, and L. R. Thompson Travelling Passenger Agent. Headquarters at St. John, N.B.

Grand Trunk Ry.—S. Chamberlain has been appointed Roadmaster district 4, vice G. Beekingham. Office, St. Lambert, Que.

X. H. Cornell has been appointed Master of Transportation, Western division, vice A. H. Lander. Office, Durand, Mich.

J. R. Williams has been appointed Trainmaster district 25 (C.S. & M.), districts 27, 28 and 29, vice X. H. Cornell, transferred. Office, Durand, Mich.

J. W. McCarthy has been appointed Trainmaster district 25 (Main line), vice J. R. Williams, transferred. Office, Battle Creek, Mich.

Great Northern Ry. of Canada.—Following is a list of officials revised since the recent changes:—President, Hon. P. Garneau; 1st Vice-President, J. McNaught; 2nd Vice-President, H. H. Melville; 3rd Vice-President, V. Chateauvert; General Superintendent, A. J. Gorrie; Treasurer, E. E. Ling; Auditor, W. A. Kingsland; General Freight and Passenger Agent, G. Tombs; Secretary, L. G. Scott; Master Mechanic, J. Pitt; Master Car Builder, J. B. Musgrave; Roadmaster, W. J. Powers. The position of Purchasing Agent has been abolished, and the purchasing is now done through the General Superintendent's office.

Intercolonial Ry.—F. E. Whelpley has been appointed Cashier, vice T. Dunning, retired.

Lake Erie and Detroit River Ry.—R. J. Tate, heretofore freight agent at Walkerville, has been appointed general agent at London, Ont., vice C. C. Young, resigned.

O. C. Tillmann has been appointed freight agent at Walkerville, Ont.

Montreal Street Ry.—Jas. Ross having resigned his position as a director and Vice-President, F. L. Wanklyn, heretofore General Manager, has been elected Vice-President, and will continue as General Manager.

Duncan McDonald, formerly Superintendent, and latterly in the service of a traction company in Paris, France, has been appointed General Superintendent.

Railway Equipment Notes.

The St. Thomas, Ont., city council has received two cars for its electric street railway.

The London Street Ry. has added five new cars to its equipment for use on the Springhill line.

The Toronto, Hamilton and Buffalo Ry. is in the market for two heavy freight locomotives.

The B.C. Electric Ry. Co. has placed a new combination car in operation on its Vancouver line.

The Cumberland Ry. and Coal Co. has ordered 6 flat cars from Rhodes, Curry & Co., Amherst, N.S.

The Mabou and Gulf Ry. Co. has placed an order with Rhodes, Curry & Co., Amherst, N.S., for six coal cars.

The Montreal Terminal Ry. Co. has received its additional equipment and is now operating its cars into Montreal city.

The Grand Valley Electric Ry. has placed two additional cars in operation on its line between Brantford and Paris, Ont.

The Hamilton Street Ry. has added five open and five closed cars to its equipment. They were purchased in the U.S.

A. R. Macdonell, contractor for the Temiskaming and Northern Ontario Ry., has received two locomotives at North Bay, Ont.

The Canadian Northern Ry. and the Pere Marquette Rd. have arranged with the Galena-Signal Oil Co. of Franklin, Pa., to use Galena oil for the initial lubrication of their equipment.

The St. John, N.B., Street Ry. has received two new double-truck cars fitted with air-brakes from the Montreal Street Ry. car works, and four additional cars are under construction.

The C.P.R. has placed an order in Scotland for 20 10-wheel compound freight locomotives, duplicates of those being built by the Saxon Engine Works, Chemnitz, Germany. Delivery is to be made in Oct. and Nov.

The Canada Atlantic Ry. is equipping its locomotives with a patent fuel economizer and smoke consumer. These appliances have already been applied to a number of the company's freight locomotives, and in all cases were found to work satisfactorily.

The New Brunswick Coal and Ry. Co. has ordered from Rhodes, Curry & Co., Amherst, N.S., 5 box cars and 40 flat cars. Press reports state that it has received one new locomotive, has purchased three locomotives from the Intercolonial Ry., and is having three combination passenger and baggage cars built.

"The steam distribution of the Vauclain compound locomotive," is the title of Record of Construction no. 42, issued by the Baldwin Locomotive Works. It is a paper read before the Mechanical Engineering Society of Columbia University, New York, and the Mechanical Engineering Society of Lehigh University, South Bethlehem, Pa.

The Grand Jury of York county in their presentment to the judge at the recent Quarter Sessions, stated that the cars in use on the Toronto Suburban Ry. were, by reason of long service, beyond repair, and a source of danger to passengers; and expressed a hope that the company would awake to its responsibility before a serious accident occurred.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. has ordered from the American Locomotive Co. seven compound consolidation locomotives, 22½ and 35x30 in., and seven moguls, 21 and 32½x26 in., which will be duplicates of previous orders. They will be built at the Schenectady Works, the consolidations to be delivered in Sept., and the moguls in Oct.

The Simplex Railway Appliance Co. of Canada, which has a plant at St. Henri de Montreal, finds its business increasing so rapidly that it has decided to secure a site, probably near Montreal, on which it will erect a manufacturing plant for making its bolsters, roller side bearings and brake beams, also steel underframings and other parts for freight cars. It is probable the company will also go into car building.

The C.P.R.'s twelve 10-wheel passenger locomotives built in Scotland, have been delivered in Montreal, the second lot of six reaching there June 16. The locomotives were shipped in parts, and were put together by mechanics sent over by the Glasgow company, assisted by C.P.R. men. The first six completed were sent to run west of Fort William, and one of them, a few days after it was put on the run, went through a bridge at Scovil, Ont., and with the debris of the bridge lies at the bottom of the lake, which is about 70 ft. deep, with a treacherous bottom.

The C.P.R. received the following new

equipment between May 11 and June 13; 6 10-wheel passenger locomotives from Scotland; 3 sleeping cars, built at the Company's Hochelaga shops; 14 freight refrigerator cars, 60,000 lbs. capacity, built by Rhodes, Curry &

Co., Amherst, N.S.; 68 freight refrigerator cars, 60,000 lbs. capacity, built at the Company's Perth, Ont., shops; 67 flat cars, 60,000 lbs. capacity, built by Rhodes, Curry & Co.; 90 flat cars, 60,000 lbs. capacity; 135 flat cars,

60,000 lbs. capacity, built by the Algoma Central and Hudson Bay Ry. at Sault Ste. Marie, Ont.

The Toronto Globe recently republished the following item from its issue of April 19,

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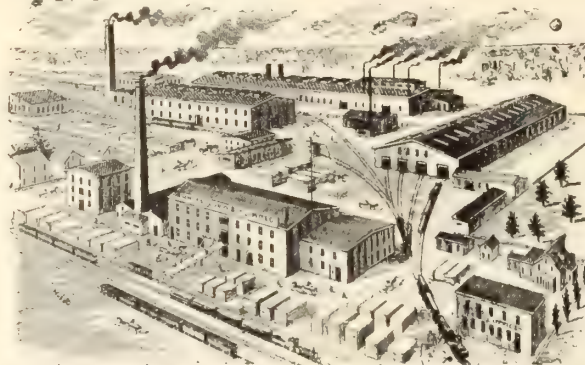
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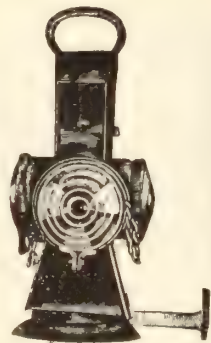
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1853: "The first locomotive and tender for the Ontario, Simcoe and Huron Rd. was yesterday removed from Mr. Good's foundry. It bore the appearance of very substantial workmanship, and we doubt not will be found equal in every respect to any imported article;" and the following from its issue of June 13, 1853: "Yesterday afternoon that enterprising individual, Mr. Good, of the Toronto Locomotive Works, turned out another locomotive tender, which, like his former production, is very creditable to his establishment. The new locomotive is rapidly approaching completion." The locomotive referred to in the first item was illustrated on pg. 367 of our issue of Nov., 1902.

The C.P.R.'s 10 compound consolidation locomotives, for which an order has been placed for delivery before Sept., 1904, will have the following general dimensions:—Diameter of drivers, 57 in.; weight, in working order, total, 164,000 lbs.; on drivers, 144,800 lbs.; cylinders, size, h.p., 22 in. dia.; l.p., 35 in. dia. x 26 in. stroke; boiler type, radial stayed; working pressure, 200 lbs.; diam. at smallest ring, 5 ft. 0-3/4 in.; firebox, length, 9 ft. 1-7/8 in.; width, 3 ft. 6-5/8 in. at mud ring; depth, front, 5 ft. 6 1/4 in., back, 5 ft. 1 1/4 in.; tubes, number, 254; diam, 2 in. o.d.; length, 12 ft. 10-9/16 in.; heating surface, in sq. ft.; tubes, 1,710; firebox, 166; total, 1,876; grate service, sq. ft., 32; tender, style C.P. standard freight; water capacity, 5,000 imp. gallons; coal, 10 tons; tires, Krupp; headlights, C.P.R. standard; brakes, Westinghouse; tender brake beams, Simplex; break shoes, C.P.R. standard; driving wheel centers, cast steel 51 in. dia.

Recent Ontario Legislation.

The following acts relating to transportation and allied interests were passed at the recent session of the Ontario Legislature:—

Respecting the North Lanark Ry.
Respecting the Hamilton Electric Light and Cataract Power Co.
Incorporating the Fort Frances, Manitou and Northern Ry. Co.
Respecting the Bruce Mines and Algoma Ry. Co.
Respecting the Huntsville and Lake of Bays Ry. Co.
Respecting the Sandwich, Windsor and Amherstburg Electric Ry. Co.
Respecting the Ontario Electric Ry. Co.
Respecting the Sarnia Street Ry. Co.
Revising the act incorporating the Ontario and Sault Ste. Marie Ry. Co.
Incorporating the Belleville and Point Ann Ry. Co.
Incorporating the Stratford Radial Ry. Co.
Respecting the Huron, Bruce and Grey Electric Ry. Co.
Incorporating the Embro Radial Ry. Co.
Incorporating the London, Parkhill and Grand Bend Ry. Co.
Respecting the St. Thomas Street Ry.
Incorporating the Minnetakie, Lac Seul and Albany River Ry. Co.
Incorporating the Sarnia, Petrolia and St. Thomas Ry. Co.
Incorporating the Sudbury, Copper Cliff and Creighton Electric Ry. Co.
Respecting the Canada Central Ry. Co.
Respecting the Colonial Portland Cement Co. (Ltd.)
Respecting the Hamilton and Caledonia Ry. Co.
Respecting the Guelph Ry. Co. and changing its name to the Guelph Radial Ry. Co.
Respecting the Southwestern Traction Co.
Revising the act incorporating the Kingston and Gananoque Electric Ry. Co.
Respecting the town of Port Arthur (street railway and telephone debentures).
Incorporating the Midland Terminal Ry. Co.

Respecting the International Transit Co.
Respecting the Lake Superior Power Co. and certain other companies.

Respecting the Toronto and Mimico Electric Ry. and Light Co.

Respecting the Lambton Central Electric Ry. Co.

Confirming by-law 713, of the township of Bertie (bonus to shipbuilding yard).

Amending the Street Railway Act.

Confirming by-law 247 of the village of Beamsville (right-of-way to Hamilton, Grimsby and Beamsville Electric Ry.).

Respecting the township of Pelee (bonus for steamer service).

Providing for the construction of works of improvement along the bank of the upper Niagara river.

Amending the Temiskaming and Northern Ontario Ry. Act.

Providing for the construction of municipal power works and the transmission, distribution and supply of electrical and other power and energy.

British Columbia Legislation.

The following acts relating to the transportation and allied interests were passed at the recent session of the B.C. Legislature:—

Ratifying order-in-council rescinding the order-in-council dated Sept. 4, 1901, respecting the land grant of the Columbia and Western Ry. Co.

Securing to pioneer settlers within the Esquimalt and Nanaimo Ry. land belt their surface and under-surface rights.

Amending the Vernon and Nelson Telephone Co. Act, 1891.

Incorporating the Kootenay, Cariboo and Pacific Ry. Co.

Incorporating the Adams River Ry. Co.

Incorporating the Morrissey, Fernie and Michel Ry. Co.

Respecting the Pacific, Northern and Omineca Ry. Co.

Incorporating the Pacific, Northern and Eastern Ry. Co.

Incorporating the Flathead Valley Ry. Co.

Incorporating the British Columbia Northern and Mackenzie Valley Ry. Co.

Incorporating the Quatsino Ry. Co.

Respecting the Nicola, Kamloops and Similkameen Coal and Ry. Co.

Incorporating the Kootenay Development and Tramways Co.

Incorporating the Kootenay Central Ry. Co.

Authorizing the city of Victoria to grant exemption of taxation and water rates to aid in the establishment of a tourists' hotel in the city.

C.P.R. Districts and Mileage.

The C.P.R. has heretofore numbered its districts consecutively from the Atlantic to the Pacific, but with the coming into effect of the June time-table a new system has been adopted. Each General Superintendent's division is treated as a whole, and the districts into which it is divided are numbered without reference to the adjoining division. The mileage is calculated for each section, and not from Montreal, as has hitherto been the case. The working time-tables for lines east of Port Arthur, Ont., are signed by C. W. Spencer, General Superintendent of Transportation, Eastern Lines; and those for the lines west of Port Arthur by J. W. Leonard, Assistant General Manager, as well as by the General Superintendents. The districts are now numbered as follows:

ATLANTIC DIVISION—Wm. Downie, General Superintendent, St. John, N.B., 688.5 miles.

District 1—C. W. Burpee, Superintendent, Brownville Jct., Me., 331.7 miles.

District 2—D. C. Newcomb, Superintendent, Woodstock, N.B., 356.8 miles.

EASTERN DIVISION—Jas. Osborne, General Superintendent, Montreal, 1269.3 miles.

District 1—T. Williams, Superintendent, Farnham, Que., 344.8 miles.

Montreal Terminals—W. J. Singleton, Superintendent, Montreal, 20.5 miles.

District 2—W. J. Singleton, Superintendent, Montreal, 123.5 miles.

District 3—J. E. A. Robillard, Superintendent, Montreal, 434.7 miles.

District 4—H. B. Spencer, Superintendent, Ottawa, 345.8 miles.

ONTARIO DIVISION—H. P. Timmerman, General Superintendent, Toronto, 778.7 miles.

District 1—Geo. Spencer, Superintendent, Toronto, 259.9 miles.

District 2—J. Manson, Superintendent, Toronto, 519.0 miles.

LAKE SUPERIOR DIVISION—G. J. Bury, General Superintendent, North Bay, Ont., 974.2 miles.

District 1—C. Murphy, Superintendent, North Bay, Ont., 459.1 miles.

District 2—R. Chapple, Superintendent, Chapleau, Ont., 268.6 miles.

District 3—G. Erickson, Superintendent, Schreiber, Ont., 246.5 miles.

CENTRAL DIVISION—F. P. Brady, Assistant General Superintendent, Winnipeg, Man., 2364.4 miles.

District 1—A. Price, Superintendent, Fort William, Ont., 458.0 miles.

District 2—J. T. Arundel, Superintendent, Winnipeg, Man., 449.9 miles.

District 3—R. Peard, Superintendent, Souris, Man., 410.7 miles.

District 4—J. Brownlee, Superintendent, Brandon, Man., 530.9 miles.

District 5—F. Dillinger, Superintendent, Regina, Assa., 514.9 miles.

WESTERN DIVISION—R. R. Jamieson, General Superintendent, Calgary, Alta., 1434.7 miles.

District 1—W. K. Thompson, Superintendent, Moose Jaw, Assa., 422.4 miles.

District 2—J. Niblock, Superintendent, Calgary, Alta., 593.1 miles.

District 3—J. G. Taylor, Superintendent, Cranbrook, B.C., 419.2 miles.

PACIFIC DIVISION—R. Marpole, General Superintendent, Vancouver, B.C., 946.3 miles.

District 1—T. Kilpatrick, Superintendent, Revelstoke, B.C., 353.7 miles.

District 2—H. E. Beasley, Superintendent, Vancouver, B.C., 285.6 miles.

District 3—D. G. Ross, Superintendent, Nelson, B.C., 307.0 miles railway, and 339.0 miles of water routes.

Grain Elevator Notes.

The Dowling Milling Co., Edmonton, Alta., is building an 80,000 bush. elevator, bringing its elevator accommodation up to 120,000 bush.

Press reports state that the G.T.R. has leased the old elevator at Penetanguishene, Ont., to Roger Bacon & Co., who operate the elevator at Collingwood, Ont.

The Northern Elevator Co.'s elevator at Gainsboro, Man., was burned to the ground, and some slight damage was done to the Dominion Elevator Co.'s elevator at the same point, May 29.

Elevators are being built by a U.S. firm near Carman, Minto and Elgin, Man., and it is reported that six or more elevators will be built at other points by the same firm during the summer. Each building will have a capacity of 30,000 bush.

The Canadian Transportation and Storage Co., referred to under Ontario and the Great Lakes on pg. 253, is asking among numerous powers from the Dominion Parliament the right to construct or acquire elevators, or subscribe for or acquire stock in elevator companies.

The Northern Elevator Co., operating under a Dominion charter, has been authorized to increase its capital from \$500,000 to \$1,000,000, and has been authorized to subscribe for the stock or bonds of other elevator companies, or to acquire the stock or bonds of similar companies.

The Colonial Elevator Co. has been incorporated under the Dominion Companies' Act, with a capital of \$350,000, to carry on through out Canada, with Winnipeg as headquarters, a general elevator business. The incorporators are: J. D. McMillan, E. N. Osborne, F. J. Smith, C. T. Jaffray, and H. O. Tull, Minneapolis, Minn.

The engineers in charge of the construction of the harbor elevator at Montreal have reported to the Harbor Commissioners that the elevator will not be completed within the time specified in the contract, Aug. 1. The Commissioners are investigating the cost of an electrical equipment for the elevator, and the contractors have been asked to submit plans and specifications.

The Imperial Elevator Co. has been incorporated under the Manitoba Companies' Act,

with a capital of \$500,000, to carry on an elevator business in Manitoba in connection with a general trading business. The head offices are to be in Winnipeg. The incorporators are: M. Boyd, W. J. Bettingen, Minneapolis, Minn.; C. A. Bettingen, St. Paul, Minn.; J. K. Cummings, Detroit City, Minn.; W. C. Leistikow, Grafton, N.D.

The Ontario Legislature at its recent session passed an act confirming the by-law passed by the Fort William town council, granting exemption from taxes (except school taxes) for 30 years for the 500,000 bush. elevator, and a flour mill having a capacity of 1,500 barrels a day, to be erected by the Ogilvy Flour Mills Co. Plans and specifications for the elevator have been prepared by John S. Metcalf Co., Chicago, Ill. The elevator is to be absolutely fireproof.

SHIPPING MATTERS.

Certificated Engineers for Steamboats.

A bill to amend the Steamboat Inspection Act of 1898 has passed its second reading in the House of Commons, and has been referred to a sub-committee for consideration. The bill was introduced by L. G. McCarthy, M.P., at the instance of the National Association of Marine Engineers of Canada, which, in its circular relating to the bill, asked that every vessel coming under the Act, of whatever capacity, be required to carry certificated en-

gineers; that all temporary certificates be abolished; that engineers holding 4th-class certificates be allowed to take charge of steamboats of from 5 N.H.P., single cylinder, up to 10 N.H.P. of compound type; that candidates for fourth-class certificates must have had 36 months' service in a machine shop making and repairing engines, and 12 months in an engine room as oiler or fireman, or 48 months' service as oiler or fireman on the watch; that all candidates for certificates be required to have their credentials examined and verified by the subordinate council of the N.A. of M.E. in the locality in which they reside; that the deck hose be placed under the charge of the deck officers after it has passed inspection, and the engineer relieved of responsibility in connection therewith during the season of navigation; and that all vessels plying on Canadian waters be subject to the laws governing Canadian built vessels. The bill deals with the first three points in the association's circular, the others are matters to be dealt with by orders-in-council. The association claims that men holding the temporary certificates have but a scanty knowledge of the business, and endanger the safety of

RAILWAY SPRINGS

Equalizing, Drawbar, Buffer and Spiral Springs of all kinds.

Locomotive, Tender and Passenger Car Springs of every description.

Electric Car Springs from the largest to the smallest.

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SUCCESSORS TO

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Manufacturers of Steel Castings

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DOMINION LINE STEAMSHIPS

FAST TWIN-SCREW SERVICE. WEEKLY SAILINGS.

MONTREAL TO LIVERPOOL

HALIFAX TO LIVERPOOL Via Queenstown
BOSTON TO LIVERPOOL Via Queenstown
BOSTON TO MEDITERRANEAN PORTS

MONTREAL TO LIVERPOOL

Canada	June 13th	July 18th	August 22nd
Kensington	" 20th	" 25th	" 29th
Dominion	" 27th	Aug. 1st	Sept. 5th
Southwark	July 4th	" 8th	" 12th

BOSTON TO LIVERPOOL

Commonwealth	July 2nd	July 30th	August 27th
New England	" 9th	Aug. 6th	Sept. 3rd
Mayflower	" 16th	" 13th	" 10th
Columbus	" 23rd	" 20th	" 17th

BOSTON TO MEDITERRANEAN

Vancouver	June 6th	July 18th	August 24th
Cambroan	" 20th	Aug. 8th	Sept. 19th

Spacious Promenade Decks, Electric Light, Passenger Accommodation all amidships.

The steamers on the Montreal and Boston services to Liverpool are all twin-screw and powerful steamers. They are fitted in the most modern style to enable the patrons of the Company to cross the Atlantic with comfort.

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Cor. King and Yonge Street, Toronto.

DOMINION LINE OFFICE,
17 St. Sacramento Street, Montreal.



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the public. The holders of the fourth class, the association claims, could replace the temporary men and there would be no scarcity of help, nor any danger to the public. A holder of a fourth class certificate is capable of taking charge of the smaller steamboats. The holder of a temporary certificate, it is claimed, is not capable of this, as he must be unable to qualify for a fourth class certificate, otherwise he would hold such. The engineers also ask, and the bill provides, that all steamboats except private yachts and tug boats under five nominal horse power, should carry certificated engineers.

The Dominion Marine Association is taking the matter up, and a deputation of its members will appear before the sub-committee when it meets to state the case on behalf of the steamboat owners. The views of owners are being gathered so that the deputation may be acquainted with the conditions prevailing in all parts. The owners of steamers on the minor inland waters are particularly affected by the proposal to do away with the temporary certificate.

Notices to Mariners.

The following notices to mariners have been issued by the Department of Marine:

No. 36. May 22.—Quebec—88. River St. Lawrence, ship channel between Montreal and Quebec, Lake St. Peter, dredging, warning.

No. 37. May 27.—Prince Edward Island—89. Gulf of St. Lawrence shore, New London harbor, channel changed, outer range light extinguished. New Brunswick—90. Chaleur bay, Restigouche river, changes in buoys.

No. 38. June 1.—Quebec—95. Gulf of St. Lawrence, Cape Rosier, change in characteristic of light completed. 96. River St. Lawrence below Quebec, South Traverse middle ground, gas buoy established.

No. 39. June 1.—Ontario—97. Chart, east side of Lake Huron, from Goderich to Chantry island.

No. 40. June 3.—Quebec—99. River St. Lawrence, ship channel between Quebec and Montreal, Contrecoeur to Varennes, changes in buoyage.

No. 41. June 5.—New Brunswick—100. Northumberland strait, Richibucto harbor entrance, south beach, range lights changed. 101. Richibucto river, Rexton, particulars of bridge.

No. 42. June 6.—Quebec—102. River St. Lawrence, ship channel between Quebec and Montreal, Lake St. Peter, Yamachiche bend, gas buoy established. 103. River St. Lawrence, ship channel between Quebec and Montreal, off Longue pointe, gas buoy established. 104. River St. Lawrence, ship channel between Quebec and Montreal, gas buoy established.

No. 43. June 8.—Manitoba—105. Lake Winnipeg, chart of southern portion issued.

The following notices have been issued by the U.S. Hydrographic office:

No. 23. June 6.—Lake Superior—1127. Duluth-Superior harbor, depths. St. Mary's river—1128. Vidal shoals channel range lights, intended change.

No. 24. June 13.—Lake Erie—1185. Cleveland harbor, improvements, buoy established, caution.

Maritime Provinces and Newfoundland.

The St. John's Tug Co. has had built at Indian Arm, the hull of a tug, which has been towed to St. John's, Nfld., where she will receive her engines.

The str. Halifax went ashore in Halifax harbor June 11, and was towed off with but slight damage. The tow boats have put in claims for salvage amounting altogether to \$18,950.

The Cape Breton Steamship Co. has purchased the coasting steamer Baynes Hawkins in England, which on arriving in Nova Scotia will be put on a route between Halifax and Sydney.

The recent forest fires in Albert county, N.B., resulted in the destruction, among other property, at Hopewell Cape, of the tug Delta, and of the hull of a steamer being built by W. Dixon for Petitcodiac river.

The ferry str. Chebucto, operating between Halifax and Dartmouth, N.S., was built in Glasgow, Scotland, for service on the East river, New York, and was run there for a number of years before being brought to Halifax.

R. Thomson, of Rothsay, N.B., has purchased the steam yacht Scionda from U.S. owners, and has taken out Canadian papers therefor. The Scionda was built at Athens, N.Y. in 1887; is 92 ft. 9 in. long, 17 ft. 6 in. beam, 8 ft. 9 in. in depth, and is fitted with compound engines 11 in., 20 in. diam., by 16 in. stroke.

Revallion & Co., of London, Eng., recently purchased the Norwegian str. Stord, of 372 tons register, and have fitted her out for a barter trading expedition along the coast of Labrador and Hudson's Bay. One station is reported to have been opened at Rigolet, and the steamer was on her way to Nain when stress of weather drove her into St. John's, Nfld.

The hull of the new str. Westport, to replace a smaller one of the same name on the route between St. John, N.B., and Nova Scotian ports, has been launched at Shelburne, N.S., and was towed to Yarmouth to be engined. Her dimensions are: length, 103 ft.; breadth, 23.5 ft.; depth of hold, 9 ft., and she will have accommodation for 150 passengers and 100 tons of cargo.

The Imperial Dry Dock Co. has applied to the St. John, N.B., city council to grant it the site near the Sand Point wharves, formerly granted for the construction of a dry dock. The company proposes to construct a wooden dock 620 ft. long, with granite and concrete entrance, and to establish a ship repair plant in connection. Exemption from taxes for 40 years, and a grant of \$2,500 a year for the same period is also asked. A committee was appointed to draw up an agreement.

The Eastern Steamship Co.'s new str. Calvin Austin has been placed on the run between St. John, N.B., and Boston, Mass. Her dimensions are: length, 325 ft.; breadth, 62 ft.; depth of hold, 21 ft. The hull is of steel, has cellular double bottom, and is divided by five water-tight and collision bulkheads. She is fitted with triple expansion engines, cylinders, 26 in., 43 in. and 71 in. diameter by 42 in. stroke, to which steam is supplied by four boilers 14 ft. by 12 ft., at a pressure of 175 lbs.

A special committee, consisting of representatives of the St. John, N.B., city council, the Board of Trade and the Trades and Labor Council, has under consideration the question of the harbor accommodation at the port. At the last meeting a resolution was passed to the effect that it was desirable to vest in commissioners or trustees, the harbor properties on the western side of the harbor from South Rodney wharf down, no matter by whom owned, and a sub-committee was appointed to prepare a definite scheme for a trust on these lines.

The interest of M. F. Plant, who held the majority of stock in the Canada Atlantic and Plant Steamship Co., has been acquired by a Boston syndicate and the company reorganized. The officers of the new company are: President, A. S. Hayes, of Boston; Treasurer, A. W. Pery, Boston; Secretary and General Manager, H. L. Chipman, Halifax; other directors, F. J. Daggett, G. E. Gale,

Boston; R. T. MacIlreith, Halifax. The company acquires the str. Halifax, the charter of the str. Olivette, and the wharf property at Halifax and other points, the price paid, it is reported, being about \$250,000.

Province of Quebec Shipping.

The Montreal Harbor Commissioners have approved of the suggestion that the control of the pilots on the river should be vested in the Department of Marine.

Owing to the lengthened drought in the country the St. Lawrence at Montreal on May 31 registered a level of 30 ft. 9 in., or 13 inches lower than the level registered on May 31, 1902.

P. F. Bowen & Co., St. Paul st., Quebec, have been appointed agents for the str. Alexandria, operated by the Montreal, Rochester and Quebec Transit Co., between Buffalo, N.Y., and Quebec.

The steamer purchased in Glasgow, Scotland, for the Dalhousie-Gaspé route by the North American Transportation Co., has been renamed the Restigouche, and has been fitted up to replace the Admiral.

The Quebec Harbor Board has written to the Montreal Harbor Commission complaining of the excessive whistling of steamers going up and down the river, and asking for joint action in putting a stop to it.

The Quebec Harbor Board has refused to grant the request of the C.P.R. to erect a large shed on the Louise embankment to be used as an immigrant quarantine station in connection with its Atlantic steamships.

In view of the increasing trade at Quebec a proposal has been made for the dredging of the inner basin and the acquisition and improvement of the frontage on St. Andrew st., with a view of affording accommodation for the coasting trade.

A suggestion has been made that the Canadian Government should invite a representative of Lloyds to inspect the St. Lawrence channel and the aids to navigation provided, with a view of obtaining a reduction in the insurance of ocean-going vessels.

With a view of providing return cargoes of pulp, etc., for his company's steamers carrying grain from U.S. ports to Quebec, Capt. Wolvin has acquired an additional 150 square miles of timber limits in the vicinity of Ste. Anne des Montes. The property includes two sawmills, to which it is proposed to add pulp mills.

The Government investigation into the grounding of the ocean steamer Carrigan Head in Lake St. Peter, on April 24, shows that the buoys marking the channel were out of place, and a recommendation was made that the channel be patrolled by a steam launch with the view of seeing that the buoys do not get shifted from their positions by the currents or other causes.

The Montreal Harbor Commissioners have passed a by-law for handing over the widened portions of Common and Commissioners Streets to the city, the latter body undertaking to allow the railway tracks now laid to remain, and to permit the laying of others for the purpose of giving access to the wharves when necessary, and to allow full and free access to the wharves at all times.

The Government has authorized the loan of a further sum of \$3,000,000 to the Montreal Harbor Commission for the purpose of improving the terminal facilities at that port. The resolution approving of the loan provides that the money shall be advanced as required, after the plans have been approved. The loan is for 25 years at 3%. It is proposed to expend about \$2,500,000 in the provision of steel sheds at the wharves, and the balance will be

utilized for grading and paving the wharves, which is now going on.

The question of the liability of the insurance companies in London, Eng., for loss occasioned by the burning of the Richelieu and Ontario Navigation Co.'s str. Montreal, at Montreal in March, has been settled by the companies paying over the amount, \$395,000. The Montreal was built by the Bertram Engine Works Co. at Toronto, and taken to Montreal through the rapids to be completed, and was accidentally burned. The policies of insurance have been assigned by the builders to the R. and O.N. Co. as security for advances made during construction.

Ontario and the Great Lakes.

The str. W. D. Matthews, for the St. Lawrence and Chicago Navigation Co., was launched at Collingwood June 20.

Capt. Thos. Donnelly, of Kingston, Ont., has been appointed surveyor for the Bureau Veritas for the Great Lakes and inland waters.

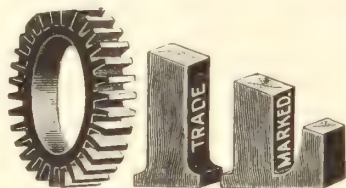
The Kawartha Lakes Navigation Co.'s str. Kenosha has been thoroughly repaired and overhauled, and the accommodation rearranged.

The Ontario Legislature has passed an act confirming the by-law passed by the township

of Bertie fixing the assessment at \$30,000 of the shipyard being laid out on the Niagara river by the Canadian Shipbuilding Co.

The Canadian tug Sarnia has been fined \$1,000 by the U.S. customs authorities at Port Huron for not taking out clearance papers, and \$140 for towing a U.S. schooner from Lake Huron to Port Huron in violation of the U.S. laws.

Specifications are being prepared by Major W. H. Bixby, U.S. engineer, for a new ship canal parallel with the present St. Clair flats ship canal. The cost of the new canal is estimated at \$330,000, and it is said contracts



For Steamboats AND RAILWAYS

Vacuum Oils Reduce Friction, thus saving Coal and preserving Machinery.

VACUUM 600 W. CYLINDER
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TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1902, gives the following statistics for the year:

CROPS.		
ACRES.	AVERAGE YIELD.	TOTAL.
Wheat..... 2,039,940	26. bus.	53,077,267 bus.
Oats..... 725,060	47.5 "	34,478,160 "
Barley..... 329,790	35.9 "	11,848,422 "
Potatoes.. 22,005	157. "	3,459,325 "

STOCK.

Number of stock in the Province, July 1, 1902:
Horses..... 146,591 Sheep..... 20,518
Cattle..... 282,343 Pigs..... 95,598
Value of Dairy Products..... \$926,314

15,000 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1902—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,000,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

For full information, maps, etc., FREE, address JAMES HARTNEY, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.
Or J. J. GOLDEN, Manitoba Emigration Agt., 617 Main St., Winnipeg, Man.



FARMING IN THE SOUTH.

The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free. Circulars as they are published from month to month.

The Local Agent is asked to note Cheap Rates to all the North West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. December folder is a good one. Get it!

G. B. WYLLIE,

Canadian Passenger Agent,

210 ELLICOTT SQUARE, BUFFALO, N.Y.

RICHELIEU AND ONTARIO NAVIGATION COMPANY.

"Niagara to the Sea."

MAIL LINE STEAMERS

(Palatial Steel Steamers)

Leave Toronto (from June 1st to 14th) Mondays, Wednesdays and Saturdays; thereafter daily, except Sunday, for Rochester, Kingston, Clayton, 1,000 Island Points and intermediate ports (running all the Rapids) to Montreal, where connection is made with steamers for Quebec, Murray Bay, Tadousac and points on the famous Saguenay River.

HAMILTON LINE

(Fine Iron Steamers)

Plying between Hamilton, Toronto, Montreal and intermediate ports, passing through the picturesque scenery of the Bay of Quinte, 1,000 Islands and shooting the Rapids.

Service: Tri-weekly, Tuesday, Thursday and Saturday from Hamilton and Toronto. Monday, Wednesday and Friday from Montreal.

For further particulars apply to

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128 St. James Street, Montreal;
or,
THOS. HENRY, Traffic Manager,
Montreal.

NEW YORK CENTRAL

& HUDSON RIVER R. R.

THE FOUR-TRACK TRUNK LINE.

In connection with the C.P.R., T.H. & B. and M.C. Railroads operate the quickest and best trains between Toronto, Hamilton and New York.

Day Train leaves Toronto 9.45 a.m., Hamilton 10.45 a.m., connects with the

"EMPIRE STATE EXPRESS"

Arrives New York 10 p.m.

Night Train with sleeping car and dining car leaves Toronto 5.20 p.m., Hamilton 6.20 p.m., arrives New York 7.50 next morning.

ONLY ONE

station in the City of New York, the Grand Central Station of the New York Central.

Connections at Lewiston with the Niagara River Line, and at Suspension Bridge with the Grand Trunk Railway.

L. DRAGO,

Canadian Passenger Agent, 69½ Yonge Street, TORONTO, ONT.

will be let as soon as the specifications are completed.

The tug Lord Stanley, purchased by the Dominion Government for the hydrographic survey of Lake Superior, has been fitted for her new work, and is located in Thunder bay. She has been renamed the Bayfield; and is in command of Capt. W. O. Zealand, late of the Algoma Central Ry. Co.'s steamer Monks-haven.

The Canadian Lake and Ocean Navigation Co. (Ltd.) has been licensed as an extra Provincial company under the Ontario Companies' Act, F. Plummer, of Toronto, being named its attorney. The company is authorized to carry on the business of a "shipbuilding, engineering, navigation, transportation and terminal company."

The screw str. City of New York has been sold by the estate of Capt. T. Currie, Port Huron, to Geo. Wilkinson, of Sarnia. The City of New York was built in 1863, and has the following dimensions: length, 136 ft.; breadth, 27 ft.; tonnage—gross, 301; net, 209 tons. The engines are high pressure, 24 by 36; firebox boiler, 16 by 10; built in Cleveland.

The J. H. Plummer, H. M. Pellatt and A. E. Ames, the three steamers built in Great Britain for the Canadian Lake and Ocean Navigation Co., reached Canadian waters early in June, from Antwerp, where they took on cargoes of steel rails for the Canadian Northern Ry. for Port Arthur, Ont. They are the first vessels that ever discharged there without breaking bulk after crossing the Atlantic.

The str. White Star, running between Toronto and Oakville, Ont., is undergoing extensive repairs at the Polson Iron Works, Toronto. On June 2, while off Bronte, the rod that connects the walking beam and the cylinders snapped and did a good deal of damage before the engines could be stopped. The Oakville Navigation Co. chartered the str. Niagara to take the place of the White Star while repairs are being made.

The Lake Superior Dry Dock Co. (Ltd.) has been incorporated under the Ontario Companies' Act to construct dry docks in Ontario, or to acquire docks and railway tracks and switches, etc., and to generate and transmit steam and other power. The capital is \$1,000,000, the offices to be in Toronto. The incorporators are R. H. Paterson, G. H. Hunter, T. Reid, R. G. Agnew, W. G. Francis, E. M. Gardiner and S. C. Wood.

J. A. Cuttle, General Manager of the Montreal Transportation Co., recently reported to the Minister of Marine that up to May 30 his company has carried 1,900,000 bush. of grain from Kingston to Montreal, an increase of 1,400,000 bush. compared with the same period of 1902. He attributes the increase to the removal of the canal tolls, which has enabled vessels to run right through to Kingston, instead of discharging at points on the upper lakes.

The Canadian and the U.S. canals at Sault Ste. Marie were open for vessels for some days in April, and 1,651,839 tons of freight passed through against 2,399,234 in April, 1902. In May the total freight passing through the canals was 4,551,270 tons against 4,084,397 in May, 1902. The figures for the Canadian canals are:

	1903.	1902.
April.....	159,763 tons	190,926 tons
May.....	636,747 "	341,262 "
Total.....	796,510 tons	532,188 tons

The str. Westmount, one of the new steamers built in England for the Montreal Transportation Co., has reached Montreal on her way from Antwerp to Fort William, Ont., with a cargo of steel rails. The Westmount has the following dimensions: length over all, 254 ft. 6 in.; breadth, 42 ft.; moulded depth,

23 ft. She is fitted with triple expansion engines, 21 in., 35 in. and 58 in. cylinders, with a 39-in. stroke, to which steam is supplied by two single ended boilers, 13 ft. 9 in. diameter by 10 ft. 3 in. long, at a pressure of 180 lbs.

The str. Empire State, owned by the Thousand Islands Steamboat Co., was burned to the water's edge at Kingston, Ont., June 6. She will be a total loss, but this loss has not been definitely figured out, though it is fully covered by insurance. The Empire State is a screw steamer, built in 1862 at New York, and was originally known as the Sylvan Stream. Her dimensions are: length, 157 ft.; breadth, 27 ft.; depth, 8 ft.; gross tonnage, 379 tons. She is fitted with beam condensing engines 40 by 96, gunboat boiler, 7 2-3 by 30.

The St. Joseph Transportation Co. is the title under which J. T. R. Laurendeau, of Montreal; G. P. Magann, of Toronto; L. G. Routhier, T. G. Coursolles, J. White, of Ottawa; W. W. Beverly, F. Belanger, of New York city, and O. Cabana, Jr., of Buffalo, are applying for incorporation at the current session of the Dominion Parliament. The company proposes to construct a canal from St. Joseph, on the eastern shore of Lake Huron, to near Port Stanley, on Lake Erie. The capital is fixed at \$10,000,000, and the head offices are to be in Montreal.

The Polson Iron Works, Toronto, has added very considerably to its accommodation at its shipbuilding yard and has put in a lot of new machinery. One of the principal pieces of machinery on the shipyard is an electric travelling gantry crane. The rails are 70 ft. apart and extend for about 500 ft., so that the steel work for two or three boats under construction at the same time may be readily delivered at the proper place. The boom is 120 ft. long and is about 60 ft. from the ground. The electrical equipment consists of two 25-h.p. and one 5-h.p. multipolar, type motors in weather-proof casings, together with the usual reversible controllers, trolley fittings, etc. A motor has been installed for the reversible hoist for operating the sheer legs used for placing machinery in vessels and for other purposes.

The Canadian Transportation and Storage Co. is seeking incorporation at the current session of the Dominion Parliament, with a capital of \$2,000,000, and power to increase it to \$5,000,000, and head offices in Toronto. The objects of the company are to carry on a general navigation business in Canada and abroad; to own wharves, elevators, warehouses, etc.; to aid in the construction of terminal facilities; to own lighters; to engage in wrecking and salvage operations; to acquire and operate electric tramways not exceeding 5 miles in length in any one case, as may be required for its business, and to acquire similar businesses. The applicants are: F. Nicholls, W. Mackenzie, H. M. Pellatt, A. Augstrom, Toronto; A. Campbell, Toronto Jct.; D. McGillivray, De W. Carter, Port Colborne, Ont.

The Canadian Lake and Ocean Navigation Co. has elected J. H. Plummer, President in place of A. E. Ames, resigned, and has appointed B. W. Folger, Snr., its General Manager. The company has seven steamers on the Great Lakes—Turret Chief, Turret Crown, Turret Cape, and Turret Court, J. H. Plummer, H. M. Pellatt, and A. E. Ames. Of these the first four were operated in 1902, and the other three were built in Great Britain during the winter. These three steamers it is intended to operate between Montreal and Port Arthur, Ont., carrying package freight, as well as grain in bulk, while the four turret type steamers will be operated as grain carriers between the upper lakes and Kingston. In connection with the Montreal-Port Arthur route, negotiations are in progress between the officials of the company and representa-

tives of the Canadian Northern Ry. on the one hand, and the officials of the Toronto city council on the other, with a view of securing wharf accommodation, so that Toronto may be made a port of call for the company's steamers. In connection with these steamers on the inland waters, the steamers Toronto and Aboukir, at present trading between Montreal and Antwerp, are managed by interests identified with the C.L. and O.N. Co., so that through routes on freight may be quoted between the northwest and Europe.

Manitoba and the Northwest Territories.

H. H. Ross has built a steamer at Medicine Hat, Assa., for trading on the North Saskatchewan river. The Prince Albert Board of Trade desires him to make his headquarters in that town.

The Winnipeg city council has protested to the Dominion Government against the approval of the plans of the projected C.P.R. bridge across the Assiniboine river at St. James unless a swing span is put in.

Oldfield & Gardner, of Winnipeg, are reported to have decided to construct a harbor at Winnipeg Beach, Man., with a view of running steamers there from Selkirk, and from Winnipeg on the completion of the St. Andrews locks.

The str. Alexandria, which is 120 ft. long, and draws 4 ft. of water, reached Portage la Prairie, Man., from Winnipeg, June 11. The trip was made at the instance of the Dominion Government for the purpose of taking soundings, and investigating the possibilities of the navigation of the Assiniboine river from Winnipeg. It is stated that it is 22 years since a steamer reached Portage la Prairie from Winnipeg. The distance between the two points by the river is about 200 miles, and this is reported to be easily navigable, with the exception of a section at St. James' rapids, and one or two other points, where the channel could be straightened and other improvements made. The farmers along the river are reported to be in favor of the river being rendered navigable. The investigations will be proceeded with on the river as far as Brandon.

B.C. and Pacific Coast Shipping.

The str. Victorian has been placed in service as a car ferry between Victoria and Port Guichon by the Victoria Terminal Ry. and Ferry Co.

The first steamers from Whitehorse reached Dawson, Yukon, June 7, but steamers from Lake Laberge had reached Dawson a week previously.

The C.P.R. has purchased four lots on the water front at Victoria, with a view of providing additional wharf accommodation for its B.C. coast steamships.

The North Vancouver town council has granted a lease of the ferry privileges to the company promoted by Mr. Hamersly. It is proposed to improve the service.

The launch of the steam launch Beryl for the British Admiralty, took place at Victoria, B.C., and not Vancouver, B.C., as stated in our last issue. A sister launch is under construction at the same yard.

The Kinross Co. (Ltd.) has been incorporated under the B.C. Companies' Act, with a capital of \$44,000, to acquire the iron ship Kinross, of Liverpool, and to carry on a general shipping and navigation business. The Kinross was built at Liverpool, Eng., in 1877, is 242 ft. long, 37 ft. beam, 24.7 depth of hold and 1,399 tons register.

H. A. Alley, Australian press reports state, is endeavoring to arrange for the establish-

ment of a new line of steamers to trade between Vancouver, B.C., Seattle, Wash., and Australian ports, via New Zealand. Four steamers, he says, will be placed on the service, and connection will be made on this side of the Pacific with the Great Northern and Northern Pacific railways.

The British Government has renewed its contract with the C.P.R. Pacific steamships for the carriage of mails between Vancouver and China and Japan for a further period of five years. In making the announcement the British Postmaster-General stated that the hopes that were entertained of a thoroughly fast service between Great Britain and the far east, through Canada, had not been realized, and intimated that the contract would not be again renewed unless there was a great improvement.

The steamers engaged on the different routes of the C.P.R.'s B.C. coast service are:

Victoria-Vancouver route, Charmer, daily; Victoria-New Westminster route, Yosemite, twice a week; New Westminster-Steveston route, Transfer, daily; New Westminster-Chilliwack route, Beaver, three times a week; Northern B.C. route, Tees and Danube, weekly; West coast, Vancouver Island, Queen City, four times a month; Alaska route, Princess May, every 10 days, and Amur, every 12 days, thus giving in sailing about every six days.

Petersen, Tait & Co., of Newcastle-on-Tyne, England, entered into a contract with the Dominion Government in 1897 to establish a line of steamers between Canada and Great Britain, and deposited \$50,000 as security for the execution of the contract. The firm was not able to finance the undertaking and the contract was cancelled. Wm. Peter-

sen, now of the Canadian Lake and Ocean Navigation Co., applied for a return of this deposit, and the Government has decided to grant the request and to pay interest at the rate of 3% from 1897.

The Dominion Government recently asked for tenders for a weekly steamship service between Canada and Great Britain, alternately, by 16 and 21 knot vessels. Two tenders were received, one from H. & A. Allan and the other from the Dominion Line, one of the companies controlled by the International Mercantile Marine Co., of New York, the first asking £300,000 a year, and the second £200,000 a year, and each attaching conditions. The Minister of Trade and Commerce has announced that neither offer was satisfactory, and that further tenders would probably be called for.

The Dominion Government has placed \$100,000 in the supplementary estimates for

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West'n Pass. Ag't, Buffalo, N.Y.

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1903-4 for the purpose of paying customs officials for extra duty after regular office hours and on Sundays and public holidays. Hitherto the cost of this service has been a charge upon the transportation companies, but the Government has decided to charge it to the country. The question of the removal of this charge from the transportation companies was taken up by the Dominion Marine Association and arguments for it were put forward when the deputation waited upon the Government, April 8.

The Little Red Book for 1903 has been issued by the Marine Review Publishing Co. of Cleveland, Ohio. It is in the usual handy size for the waistcoat pocket, and gives a list of about 1,500 vessels trading on the Great Lakes, together with the owners, masters and engineer of each. The vessels of 315 owners are listed, all the vessels owned by the one line or company being given together, the number of the fleet being quoted as a reference in the alphabetical list of vessels. A new list is added this year giving the capacity of all vessels suitable for the iron ore carrying trade. The number of Canadian fleets included in the list is 27, with 111 steamers and 19 schooners or tow barges, against 21 fleets with 96 steamers and 19 schooners or tow barges. In the issue for 1903 the ten steamers for the Great Lakes and St. Lawrence Transportation Co. are included, though they are not yet in service, while a number of additional steamers, four of which are already in service, are not mentioned, their purchase, or the appointment of their officers, not having been completed in time for inclusion.

Among the Express Companies.

W. J. Sloan, agent of the Great Northern Ex. Co. at New Westminster, B.C., has been sentenced to 16 months' imprisonment with hard labor for embezzling the Company's funds.

The Dominion Ex. Co. has extended its service on the C.P.R. extension from Waskada to Lyleton, Man., and has opened offices at Edrans, Cameron, Corona, Coulter and Lyleton thereon.

The Dominion Ex. Co. has placed its service on the following water routes for the season of navigation: C.P.R. steamships, B.C. lake and river service on Tront Lake, between Gerrard and Tront Lake City; Deseronto Navigation Co.'s steamers between Deseronto, Northport, Belleville and Picton, Ont.

An endeavour was made in the House of Commons, when the bill for the appointment of a railway commission was under consideration in committee, to have a clause inserted bringing express companies under the control of the commission. The Minister of Railways stated that the bill in a general way covered all reasonable complaints regarding express parcels; beyond this the regulation of express companies was a matter for a separate law.

Telegraph and Cable Matters.

The Commercial Cable Co. has declared a quarterly dividend of 2% payable July 1.

The De Forest system of wireless telegraphy has been installed on the Hamilton Steamboat Co.'s steamer Macassa.

The Newfoundland Legislature has appropriated \$50,000 for extensions of the telegraph lines on the island during the current year.

The C.P.R. telegraph department is stringing an additional wire between St. John and St. Stephen, N.B., to give a line entirely for commercial work.

The Newfoundland Government has erected postal telegraph offices at Clarenceville,

Blandford, Glenwood, Lewisport, Norris Arm, and Millertown Jct.

T. A. Colwell, on leaving the employ of the Commercial Cable Co. at Canso, N.S.; recently, was presented with a gold watch and chain by the company's officials and operators there.

The C.P.R. telegraph department is stringing an additional copper wire on its line between Winnipeg and Brandon, Man., and will string an additional wire along the C.P.R. Pembina Mountain branch.

Forty miles of cable will be laid from Banfield Creek, B.C., up the Alberni canal, to replace a section of land line which broke down frequently during the winter. This line is used in connection with the all-British trans-Pacific cable.

The Yale-Kootenay Telephone and Telegraph Co., which strung lines from Cascade to Carson, and from Midway to Greenwood, B.C., has sold them to the Great Northern Ry. Co., U.S.A., which owns the connecting lines in Washington Territory.

The Dominion Department of Public Works operates 5,720 miles of telegraph lines, employing in connection therewith 222 officers. The yearly average of messages sent is 89,400, of which 40,000 are credited to the Yukon. The total expenditure account of the Government telegraph service for the year ended June 30, 1902, was \$298,988, and revenue \$114,266.

The Dominion Government telegraph line under construction, to make the circuit of Cape Breton island, has been completed to St. Peters; and the stringing of the line on the southern shore of the island is under way. Offices on the new lines completed last year, and now in progress, will be located at St. Peters, L'Ardroice, Grand River, Forchu, Gabarus, Louisburg, and Main Adieu, with two on Scattarie island.

The C.P.R. telegraph department has opened the following new offices:—Ottertail, B.C.; Banff hotel, Halbright, N.W.T.; International pier, Whitney pier, N.S.; Otta Lake, Queenston, Ravensworth, Seguin Falls, Banning, Ont.; Belisle Mill, Mount Tremblant, Que. The following offices have been closed:—Edrans, Man.; Sidewood, N.W.T.; Baden, Dalton, Metagama, Otter, Pardee, Ryerson, Ont.; Conception, Chelsea, Que.

E. H. Millington, Superintendent of the telegraph service of the Michigan Central Rd. at Detroit, Mich., was born at Guelph, Ont., Dec. 1, 1859, and started as a messenger for the Montreal Telegraph Co. at Guelph in 1873, subsequently becoming an operator for the Dominion Telegraph Co. He entered railway telegraph service in 1882 with the Canada Southern Ry., and became chief operator in 1889, being appointed to his present position Aug., 1902.

The operation of the all-British and trans-Pacific cable has not been so successful as was anticipated, the Cable Board recently estimating that there would be a deficit for the year ended Mar., 1904, of £92,000. As Canada has to pay 5-18 of any deficit, her share would amount to £25,555. The matter was mentioned in the House of Commons, and the Senate, and certain correspondence was directed to be laid on the table. It appears that the Government has protested against what appears to be an act of bad faith on the part of the New South Wales Government in entering into an agreement with the Eastern Extension Cable Co., by which this company was given entrance to the post offices throughout N.S.W.; and that it also proposed to the Cable Board to permit press messages to be transmitted free for three months as an experiment, but the Australian States refused to join in the proposal.

General Telephone Matters.

The Regina, Assa., city council has under consideration the desirability of installing a municipal telephone system.

The Nova Scotia Telephone Co. is applying to the Provincial Government to sanction an increase of rates in Truro.

The New Brunswick Telephone Co. will string a metallic line from Fredericton to St. John, and from Moncton to St. John.

The Nissouri Telephone Association has its line in operation connecting Thamesford, Lakeside, Kintore and Medina, Ont.

The new municipal telephone building at Fort William, Ont., replacing the one burned during the winter, has been completed, and the telephone plant installed.

The Bell Telephone Co. has offered to pay \$352 a year for an exclusive franchise for five years in Sault Ste. Marie, Ont., but this was not satisfactory to the council and the company was asked to make another proposition on certain lines.

The Bell Telephone Co. has agreed to give Montreal West a telephone service at city rates, connection being made with the Westmount exchange. The town council has granted the franchise, and the lines will be installed at once.

The Bell Telephone Co. has protested against the Sherbrooke, Que., city council locating the poles of the People's Telephone Co. in close proximity to its poles, in contravention of an agreement between the city and the Bell Telephone Co. in 1885.

The Bell Telephone Co. is clearing the site of its proposed new building in Hospital st., Montreal. The site adjoins its present building and includes the Skelton property, 45 ft. frontage and 3,183 sq. ft. in area, and the next property, 98 ft. frontage and 7,577 sq. ft. in area.

The New Brunswick Telephone Co. declared a dividend of 4% for the year, and elected the following officers at its annual meeting: President, Hon. A. G. Blair, M.P.; Vice-President, J. L. Black, Sackville; Managing Director, Senator Thompson; Secretary and Treasurer, W. E. Smith.

The bill respecting telephones introduced into the House of Commons by W. F. Maclean, M.P. for West York, was referred to a special committee. Deputations representing the Bell Telephone Co., Toronto, Ottawa and other cities, and the Union of Canadian Municipalities, were heard by the committee.

The Consolidated Telephone Co. has been incorporated under the New Brunswick Companies' Act, with a capital of \$5,000, to carry on a telephone business in Carleton and Victoria counties. The incorporators are: M. E. Commins, P. Corbett, M. Bohan, of Bath; P. Gorey, P. McLaughlan, of Johnville, and the offices of the company are at Bath.

The proposition to expend \$2,000,000 in the laying of a conduit into which telephone, telegraph and other electric companies will be compelled to lay their wires by the Montreal city council, will be submitted to the tax payers before any definite action is taken. A conference between the council committee and representatives of the companies interested was held, June 18, to discuss the matter.

The West Isles Telephone Co. has been incorporated under the New Brunswick Companies' Act with a capital of \$4,000, to construct a telephone line between Lord's Cove and various other sections of the district of West Isles, and to make connection with the lines of any other similar company. The incorporators are: J. S. Lord, F. A. Richardson, E. A. McNeill, W. L. Randall, A. Murray, of West Isles, and the offices of the company are at Lord's Cove, N.B.

The Canadian Freight Association's general summer meeting will be held at Manoir Richelieu, Murray Bay, Que., on July 8. Most of the members, especially the western ones, will travel by the R. and O. N. Co.'s steamers, and from Quebec will make the round trip via Tadousac and up the Saguenay to Chicoutimi, returning to Murray Bay for the meeting.

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DIVIDEND NOTICE

NOTICE is hereby given that an interim dividend of four per cent. upon the capital stock of the company has this day been declared, and that the same will be payable at the office of the Company, 54 King Street East, Toronto, on the 2nd of July, 1903, to shareholders of record on the books of the Company on the 16th June, 1903.

The transfer books of the company will be closed from the 17th of June to the 2nd of July, 1903, both days inclusive.

By order of the Board.

JOHN FOLY, PRESIDENT.

Toronto, 13th June, 1903.

PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Steam Shovels

James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Steel

James Cooper.....Montreal.
B. J. Coghlin & Co.....Montreal.
Wm. Jessop & Sons.....Sheffield, Eng.
Rice Lewis & Son.....Toronto.

Steel Buildings

Dominion Bridge Co.....Montreal.

Steel for Springs

James Hutton & Co.....Montreal.

Steel Plate

Jas. W. Pyke & Co.....Montreal.

Steel Tires

B. J. Coghlin & Co.....Montreal.
James Hutton & Co.....Montreal.
Latrobe Steel Co.....Philadelphia, Pa.
Jas. W. Pyke & Co.....Montreal.

Structural Metal Work

Dominion Bridge Co.....Montreal.
Locomotive and Machine Co. of Montreal.
Jas. W. Pyke & Co.....Montreal.

Switches

Montreal Steel Co.....Montreal.

Switch Lamps

The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Switch Ropes

The B. Greening Co.....Hamilton, Ont.

Switch Targets

Acton Burrows Co.....Toronto.

Tanks and Tank Fixtures

Ontario Wind Engine and Pump Co.....Toronto.

Telegraph and Telephone Office Signs

Acton Burrows Co.....Toronto.

Tie Plates

B. J. Coghlin & Co.....Montreal.

Tobacco and Cigars

The Hudson's Bay Company.....

Toilet Paper

The Hudson's Bay Company.....

Tools

Rice Lewis & Son.....Toronto.

Track Jacks

James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

Track Tools

Canada Switch and Spring Co.....Montreal.
James Cooper.....Montreal.
Rice Lewis & Son.....Toronto.
W. H. C. Mussen & Co.....Montreal.

Tramway Equipment

James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.
J. J. Gartshore.....Toronto.

Trucks (Electric Car)

Baldwin Locomotive Works.....Philadelphia, Pa.
Montreal Steel Co.....Montreal.

Trucks (Warehouse and Express)

Rice Lewis & Son.....Toronto.

Turntables

Dominion Bridge Co.....Montreal.

Varnishes

McCaskill, Dougall & Co.....Montreal.

Vessels

Polson Iron Works.....Toronto.

Waste

B. J. Coghlin & Co.....Montreal.
Rice Lewis & Son.....Toronto.
N. L. Piper Ry. Supply Co.....Toronto.
The Queen City Oil Co.....Toronto.

Wheelbarrows

James Cooper.....Montreal.
Rice Lewis & Son.....Toronto.

Windmills

Ontario Wind Engine and Pump Co.....Toronto.

Window Blinds

The Hudson's Bay Company.....

Wines and Liquors

The Hudson's Bay Company.....

Wire and Wire Rope

Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.
Rice Lewis & Son.....Toronto.
W. H. C. Mussen & Co.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Brass and Steel

Dominion Wire Manufacturing Co.....Montreal.

Wire Cloth

The B. Greening Co.....Hamilton, Ont.

Wire, Copper

Dominion Wire Manufacturing Co.....Montreal.
E. F. Phillips Electrical Works, Ltd.....Montreal.

Wire, Electric

Dominion Wire Manufacturing Co.....Montreal.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Goods

Dominion Wire Manufacturing Co.....Montreal.

Wire, Insulated Copper

E. F. Phillips Electrical Works, Ltd.....Montreal.

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Dominion Wire Manufacturing Co.....Montreal.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Transmission and Trolley

Dominion Wire Manufacturing Co.....Montreal.

Wood Screws

Dominion Wire Manufacturing Co.....Montreal.

Yachts

Polson Iron Works.....Toronto.

Cattle Guards Commission.—The Commissioners appointed to make an investigation into the question of cattle guards for railways had not presented a report to the Minister of Railways up to June 20. The commission ceased testing appliances at the end of April, having, during the time it was in session at Ottawa, made 169 tests of 112 different devices. Out of all these devices 44 were found to stop cattle, a large number of them being devices in the shape of gates closing across the track when animals approaching stepped on a platform. A number of devices submitted were in the shape of a "bluff," and of these seven tests proved effective in frightening animals. Other guards submitted and tested were in the shape of traps, and several of these proved effective by catching animals' legs and throwing them down so that they had to be extricated. Of the various strictly surface guards exhibited none proved effective, the animals crossing them all.

H. W. Lawlor, the holder of a book of coupon tickets, available over the Montford and Gatineau Colonization Ry., has secured a verdict of \$500 against the Company, and J. Brunet, its President prior to the amalgamation with the Great Northern Ry. of Canada. Mr. Lawlor offered the conductor a detached coupon, which he refused to accept, and was upheld in his refusal by the President, who was on the train, on the ground that detached coupons could not be received. Mr. Lawlor insisted on the ticket being accepted and was put off at the first stopping place, hence the action for ejectment.

A branch of the railway Y.M.C.A. has been started at Lindsay, Ont., and a portion of the Y.M.C.A. building is being fitted up specially for the railway men, about \$700 being spent on the alterations and furnishing of the new rooms.

The G.T.R. has provided a library on its through trains for the use of passengers on cafe-parlor and Pullman cars. Each cabinet will contain from 25 to 50 books, and these will be changed every three months.

The Montreal Street Ry. Co. proposes to aid in the formation of a mutual benefit association for its employees, and is arranging details which will be laid before the men soon.

The Michigan Central Rd. is placing a number of one and two-arm electric motor semaphores on its Canadian division between Windsor, Ont., and Buffalo, N.Y.

The Central Vermont Ry. has removed its Montreal agency from 138a St. James Street to 134 St. James Street.

The Lake Erie and Detroit River Ry. has closed its up-town office in London, Ont.

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To the Manufacturers of & Dealers in Steam & Electric Railway, Steamship, Express, Telegraph & Telephone supplies, &c.

Accident Insurance

Canadian Ry. Accident Ins. Co. Ottawa, Ont.
Travelers' Insurance Co. Montreal.

Aerated Waters

E. L. Drewry Winnipeg.

Air Brakes & Fittings

Westinghouse Mfg. Co. Hamilton, Ont.

Ales

E. L. Drewry Winnipeg.

Anchors

Rice Lewis & Son Toronto.

Axles

James Hutton & Co. Montreal
Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

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Rice Lewis & Son Toronto.

Boat Fittings & Hardware

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Boiler Covering

Mica Boiler Covering Co. Montreal.

Boilers

Polson Iron Works Toronto.

Boiler Tubes

B. J. Coghlin & Co. Montreal.
Jas. W. Pyke & Co. Montreal.

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts

Rice Lewis & Son Toronto.

Brake Beams

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Brass and Copper Cloth

The B. Greening Co. Hamilton, Ont.

Brass Castings

St. Thomas Brass Co. St. Thomas, Ont.

Bridge Numbers

Acton Burrows Co. Toronto.

Bridges

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Buoy Lighting

Safety Car Heating and Lighting Co., New York

Cables, Electric and Feeder

E. F. Phillips Electrical Works, Ltd., Montreal.
The Wire and Cable Co. Montreal.

Car Couplers

Latrobe Steel and Coupler Co., Philadelphia, Pa.

Car Heating

Safety Car Heating and Lighting Co., New York

Car Jacks

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Car Lighting

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Car Wheels

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Castings

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Cement Machinery

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Chains

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Coal Haulage Ropes

The B. Greening Co. Hamilton, Ont.

Concrete Mixers

W. H. C. Mussen & Co. Montreal.

Contractors' Plant

James Cooper Montreal.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Cotter Pins

Dominion Wire Manufacturing Co. Montreal.

Cross Arms, Top Pins & Side Blocks

The Firstbrook Box Co. Toronto.

Crossing Gates

The N. L. Piper Railway Supply Co. Toronto.

Curtains

The Hudson's Bay Company

Cuts

Acton Burrows Co. Toronto.

Derrick Ropes

The B. Greening Co. Hamilton, Ont.

Derricks

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Door Signs

Acton Burrows Co. Toronto.

Dry Goods

The Hudson's Bay Company

Electric Car Route Signs

Acton Burrows Co. Toronto.

Electric Cranes

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Enameled Iron Signs

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Engines, Stationary & Marine

Polson Iron Works Toronto.

Engraving

Acton Burrows Co. Toronto.
Toronto Engraving Co. Toronto.

Expanded Metal

Expanded Metal and Fire-Proofing Co. Toronto.

Express Office Signs

Acton Burrows Co. Toronto.

Fencing

Canadian Steel and Wire Co. Hamilton, Ont.
Dominion Wire Manufacturing Co. Montreal.
Page Wire Fence Co. Walkerville, Ont.

Fire-Proofing

Expanded Metal and Fire-Proofing Co. Toronto.

Flags

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Flour

The Hudson's Bay Company Montreal.
The Ogilvie Flour Mills Co. Montreal.

Foghorns

Rice Lewis & Son Toronto.

Gates

Page Wire Fence Co. Walkerville, Ont.

General Supplies

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Grain Elevators

John S. Metcalfe Co. Chicago, Ill.

Groceries

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Hardware

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The Hudson's Bay Company

Headlights

N. L. Piper Railway Supply Co. Toronto.

Hose

Rice Lewis & Son Toronto.

Illustrations

Acton Burrows Co. Toronto.

Interlocking Plants

Montreal Steel Co. Montreal.

Iron

Rice Lewis & Son Toronto.

Iron Signs

Acton Burrows Co. Toronto.

Japans

McCaskill, Dougall & Co. Montreal.

Journal Bearings

Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry Winnipeg.

Lamps & Lanterns

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Locomotives (Rack)

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Baldwin Locomotive Works Philadelphia, Pa.
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Locomotives (Steam)

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Canadian Locomotive Co. Kingston, Ont.
James Cooper Montreal.
Locomotive and Machine Co. of Montreal

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The Saxon Engine Works, Chemnitz, Germany.

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The Saxon Engine Works, Chemnitz, Germany

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Mohair

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Numbers

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Oakum

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Galena-Signal Oil Co., Franklin, Pa., & Toronto.
The Queen City Oil Company Toronto.

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Packing

The N. L. Piper Railway Supply Co. Toronto.

Pinch Bars

The Hiram L. Piper Co. Montreal.
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Pipe Covering

Mica Boiler Covering Co. Montreal.

Plushes

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Porter

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Rice Lewis & Son Toronto.

Printing

The Hunter, Rose Co. Toronto.
The Mail Job Printing Company Toronto.

Pumps

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Railway Supplies

The N. L. Piper Railway Supply Co. Toronto.

Rail Joints

Montreal Rolling Mills Co. Montreal.

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Drummond, McCall & Co. Montreal.
J. J. Gartshore Toronto.

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N. L. Piper Railway Supply Co. Toronto.

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(Continued on preceding page.)

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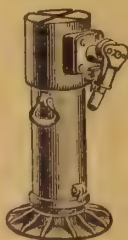
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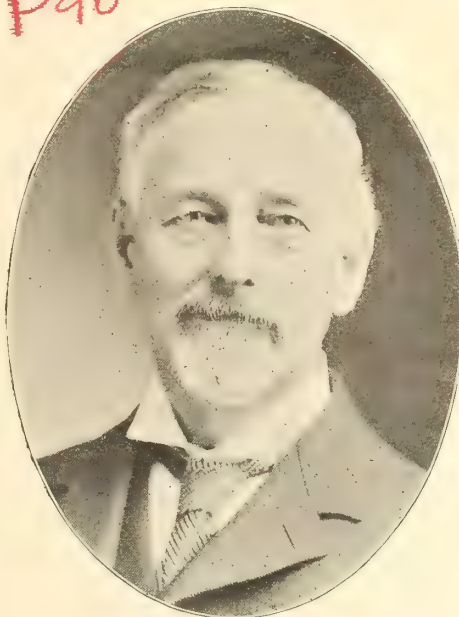
Investigation of Railway Accidents.

In view of the discussions which have taken place in the House of Commons this session on the question of investigating railway accidents and the suggestion that Parliament should take steps to provide for such investigations, it will be of interest to learn particulars of the system pursued in Great Britain. We recently communicated with Lt.-Col. Yorke, R.E., Chief Inspecting Officer of Railways, Board of Trade, who has very courteously supplied the following information:—

The Regulation of Railways Act of 1842 renders it obligatory upon every railway company to give notice to the Board of Trade of its intention to open for passenger traffic any railway or section of a railway. The Act has no reference whatever to lines used wholly for goods traffic. On receipt of such notice the Board of Trade is required to cause the line to be inspected before the opening takes place. If the officer appointed by the Board should after inspection report to the Department, that in his opinion "the opening of the line would be attended with danger to the public using the same, by reason of the incompleteness of the works or permanent way, or of the insufficiency of the establishment for working such railway," the Department may direct the company to postpone the opening of the line for one month at a time, the process being repeated from month to month as often as may be necessary. The company is liable to a fine of £20 a day if it should open the railway in contravention of such order. The inspections made by the officers of the Board of Trade are very complete; the permanent way, bridges, viaducts, tunnels, stations, and other works are carefully examined, iron and steel girders are tested, and the signalling and interlocking are thoroughly tried, and every means are employed to ascertain that the railway has been constructed and completed in the most satisfactory manner. A simple code of requirements has been prepared by the Department for the guidance of railway companies, and as the special circumstances of each line are considered on their merits, it does not often happen that it becomes necessary to postpone the opening of a new line. The Act does not authorize the Department to inspect any railway after it has been opened, unless some alteration or addition is made to it. It is the duty of the company to maintain the line in accordance with the standard of efficiency which it originally possessed, but whether it does so or not, the Board of Trade has no power to interfere. It may be of interest to state here that all tramways or street railways, or any extension of them, whether worked by horses, steam, or electricity, have also to be inspected for the Board of Trade, and "certified as fit for traffic," before they may be opened for public use.

The Regulation of Railways Act of 1871 renders it obligatory on all railway companies to give notice to the department of any acci-

dent which may occur in or about the railway, or any works or buildings connected therewith, that is to say, any accident attended with loss of life or personal injury to any person whatsoever; any collision in which one of the trains is a passenger train; any passenger train or part of such train leaving the rails; or any other accident likely to have caused loss of life or personal injury, specified on that behalf by any order made from time to time by the Board of Trade. On receipt of such report the Department is authorized to cause an enquiry to be made into the cause of any accident so reported, and the officer appointed to hold the enquiry has power to enter upon any railway premises



WILLIAM MCWOOD.

Superintendent Car Department, G.T.R.

for the purpose of his enquiry, to summon any person engaged upon the railway to attend the enquiry as a witness, and to require the production of all books and documents which he considers necessary for the purpose. There is no statutory procedure laid down for such enquiries, which are conducted in the manner that seems to the officer best suited to the circumstances of the case, but a fairly well recognized procedure has grown up. The site of the accident is first visited, and a careful investigation made of all the circumstances attending the disaster. An adjournment is then made to a room, and the evidence of the various witnesses is taken down verbatim. The court is not a court of law, and witnesses are not examined on oath, nor is the officer

bound by the strict law of evidence; it is simply a court of enquiry. The admission of the general public and of the press rests within the discretion of the officer; the usual practice being to admit the press and public in cases of general interest, unless there has been loss of life, and there is any chance of any servant of the company, or of any other person, being put upon their trial for manslaughter or other grave offence, such as criminal negligence, in which case it is not as a rule considered advisable to admit the press, etc., lest the person implicated might be prejudiced by anything that transpired during the enquiry. It must be clearly borne in mind that the enquiry by the Board of Trade is for the purpose of ascertaining the cause of the accident with the view of preventing a recurrence of the same, and not for the purpose of penalizing anyone; the latter is left to be dealt with by the usual process of law. A Board of Trade enquiry, therefore, is in addition to, and independent of any proceedings before the coroner or magistrate. The Act of 1871 confers upon the coroner, when holding an inquest on the death of a person occasioned by a railway accident, the right to request the Board of Trade to appoint an inspector, or some person possessing special knowledge to act as assessor to the coroner, and this is sometimes done. But such a course does not prevent the Department from holding an independent enquiry. The same Act empowers the Board of Trade to hold what is called a "formal investigation" into the cause of any accident in lieu of or in addition to the less formal enquiry to which reference has been made. In the event of such "formal investigation" being held, the Board may appoint "any person or persons possessing special or legal knowledge to assist an inspector holding" the enquiry, or may "direct the county court judge, stipendiary magistrate, metropolitan police magistrate, or other person" to hold the enquiry with the assistance of an inspector or any other assessor. Such an investigation has to be held in open court, and the witnesses may be examined on oath, and the court has all the powers of a court of summary jurisdiction, besides all the powers of an inspector under the Act. But the necessity has never arisen hitherto for holding such a formal investigation. The inspector after making his enquiry is required to make to the Board of Trade a report as to the causes of the accident and the circumstances attending the same, with any observations on the subject which he deems right, and the Board "shall cause every such report to be made public in such manner as they think expedient." The usual manner of publishing such reports is to forward them to the railway companies concerned, and to the press, and to anyone else who is interested. The reports are subsequently included in a "blue book" and presented to Parliament. It should be noted that although the officer may in his report make recommendations with a view to guarding against any similar accident occurring in

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Investigation of Railway Accidents.

(Continued from page 257.)

the future, no power is given to the Board of
Trade, or any other authority, to compel any
railway company to adopt such recommenda-
tions. This omission is sometimes criticized
as a defect in the Act, but it is not really so.
The moral effect of the publication of the re-
port with the criticisms of the company's meth-
ods is great, and it seldom happens that a
company refuses to adopt, or at least to test
the recommendations made by the officer who
held the enquiry. If, however, the company
is of opinion that the suggestions of the offi-
cer are not likely to be useful, or are for any
reason inexpedient, the company is at liberty
to reject them, the responsibility of so doing
resting on it. The effect of this latitude is to
give the company discretion in the matter,
and to enable the Act of Parliament to be ad-
ministered without undue interference.

An important Act was passed in 1889, put-
ting on the Board of Trade the duty of call-
ing upon all railway companies throughout

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the United Kingdom to adopt upon all lines
carrying passengers the system of block
working; to interlock points and signals, and
to fit all trains carrying passengers with
"continuous brakes." A reasonable time was
allowed to the companies in which to com-
ply, and the work is now practically com-
plete. In respect of block working and inter-
locking, therefore, the lines of the United
Kingdom are far ahead of those of any other
country, and a marked diminution of accidents,
particularly of collisions, has resulted from
this cause. The use of the electric staff or
electric tablet for single line working, which
practically combines the principle of block
working with the use of the ordinary train
staff, is held to be a compliance with the Act.
If, however, the ordinary train staff is used in
conjunction with train "tickets," then block
instruments have to be provided in addition.
When the line is of such small importance
that the traffic can be handled by one engine
in steam, block instruments are, of course, not
required. The effect of the regulations is that
single lines as well as double lines in Great
Britain are worked with a remarkable im-
munity from accident, and head-on collisions
are almost unknown.

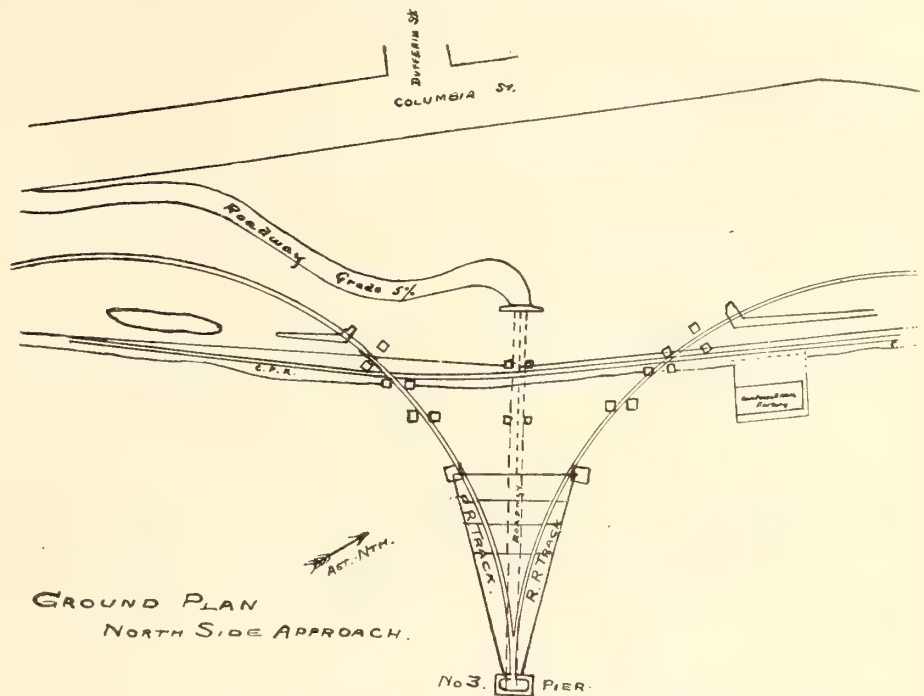
In addition to the Acts of Parliament safe-

guarding the interests of passengers, recent legislation has been directed to the protection of the servants of railway companies, and investigations are held into numerous cases of injury, fatal or otherwise, which befall railway men. A code of rules has been drawn up by direction of Parliament for the safety of the men, and further rules are at present under consideration.

There are four inspecting officers, including Lt.-Col. Yorke, whose duties are chiefly, though not entirely, confined to the inspection of new railways and tramways, or new works on railways, e.g., signal boxes, stations, sidings, junctions, etc., and to the investigation of accidents to trains. There are also two assistant inspecting officers and two sub-inspectors, whose duties are chiefly directed to the investigation of accidents to railway servants. The above staff deals with all the railways and tramways in the United Kingdom, including Scotland and Ireland. The duties are sufficiently onerous and responsible. The relations between the officers of the Board of Trade and the officers of the railway companies are of a friendly nature, and the latter do all they can to assist the former in the performance of their duties.

The Manual of Statistics.

The Manual of Statistics Co., 220 Broadway, New York, has published its 25th annual volume, which comprises within its 1044 pages, a substantial increase on its size for 1902, information, statistical and otherwise, as to railway and other transportation, and allied companies as well as to general industrial and other corporations. The arrangement under the different departments is a good one, and the thumb index aids in locating the section which it may be desired to consult. In regard to the information respecting the Canadian railways and other companies included in the volume, it would be advisable that the proof sheets should be submitted to some one in Canada for correction before going to press, with a view of preventing errors, which detract from the value of the work. For instance, we note the following: On pg. 48 it is stated that the Canadian Northern Ry. Co. has issued \$7,000,000 of the \$24,750,000 of ordinary stock authorized, and has a funded debt of \$1,418,300, in respect of 1,221 miles of railway owned and leased, while the reports to the Dominion Government for the year ended June 30, 1902, show that the company had issued the \$24,750,000 of common stock authorized, and there was paid up on its debenture stock \$10,881,726, which includes the \$2,000,000 of land grant bonds, and the \$7,361,152 of bonds, the interest of which is guaranteed by the Manitoba Government, in respect of 892.62 miles of line. On pg. 150, under the heading of the Kingston and Pembroke Ry. Co., there appears a sentence, "It was stated in 1901 that the Canadian Pacific had acquired the property," while the list of officers shows that out of the nine directors, there are one C.P.R. director and five C.P.R. officials, one of whom is Vice-President and General Manager. On pg. 151, under the Lake Erie and Detroit River Ry., it is reported that in Nov., 1902, the Pere Marquette Rd. had acquired the control of the line, and the new officers are given; while under the Pere Marquette Rd., on pg. 226, mention is made of its being "stated in Dec., 1902," that the L.E. and D.R. Ry. had been acquired in the interests of the P.M. Rd. Errors of this kind are calculated to impair the value of the work, and show the necessity of fixing a date each year up to which the information published is obtained from the latest issued reports, with a supplement showing changes and alterations up to the date of going to press.



THE NEW WESTMINSTER END OF THE FRASER RIVER BRIDGE.

On the New Westminster side the bridge ends in a Y, the left or westerly, fork of which leads to the location for a station for any new lines entering the city, while the right or easterly fork heads for Sapperton, on the way to Vancouver.

The Fraser River Bridge.

The substructure for the bridge being constructed by the B.C. Government over the Fraser river at New Westminster is almost completed, and preparations are well under way for starting the erection of the superstructure. The completed structure, of which a view of the engineer's perspective sketch is given on pgs. 274 and 275, will span the Fraser river from near the foot of Dufferin st. to a point not far from the little Indian church on the south side of the river, above Brownsville. It will have thirteen spans, five each 160 ft. in length; one of 225 ft.; one of 380 ft.; and a swing span 361 ft., giving a passage for steamers on either side of 180 ft. Also there will be two plate girder spans, each 40 ft. wide, and one of 90 ft., at the railway track on the city side. At the south, or Surrey end, there will be a trestle approach 1,310 ft. long. The clearance under the bridge, with an average tide, will be 25 ft. This will allow steamers only that height to pass without opening the draw or swing span, but most of the small river tugs may thus pass, while even larger tugs may do so by simply having their funnels constructed so that they may be lowered, as is done in other places. The structure will be of the double-deck type, the railway track occupying the lower chord of the bridge. Where this track leaves the bridge it will pass 23 ft. above the C.P.R. track on the city shore, and the same height above the Great Northern Ry. track on the Surrey shore; and on the city shore, moreover, space is left beneath for building two tracks outside that of the C.P.R. The railway approach on the city side presents a novelty in bridge architecture, viz., a fan tail approach. From the end of the bridge proper, at the deep water pier, the railway track will branch into two, one curving westerly, the other easterly. A sketch showing this approach appears on this page. At pier no. 3 is the deepest water and a 225 ft. span. Over this pier the girders are 20 ft. centres, while on no. 2 pier, nearer shore, the fan spread has extended to 135 ft., no. 2 pier being a double pier, in shallow water near shore. On

the south, or Surrey side of the river, the railway approach will be on a high embankment or trestle curving east from the bridge. The grades of the approaches will be 1% compensated. Where the track crosses the C.P.R. it will be 25 ft. above it, but at a distance of 700 or 800 yards it reaches the level of the C.P.R. track on Front st., about the Brackman-Ker wharf, the level to the east being reached beyond the penitentiary. On the south side the level is reached on neutral ground, where connection is made with the tracks of the G.N.R. or any other railway seeking to cross the river at this point. The highway for wagons and other vehicular traffic will be on the upper deck of the bridge, with the usual clearance of 23 ft. above the railway track. On the shorter spans this deck will be on the upper chord, and on the longer spans it will be about mid-height. On the city side this highway does not follow the curves of the railway tracks beneath, but, on leaving the bridge proper at no. 3 pier, goes straight ahead and strikes the bank of the Pleasure Grounds, about 50 ft. above the level of Front st., and nearly as much below the level of Columbia st. at that point.

The substructure possesses a number of features of interest. Piers 1 and 2 are double, making seventeen piers, exclusive of the abutments and pedestals on the shore. The borings failed to discover solid rock bottom within reasonable depth. The water at no. 3 pier was found to be 80 ft. deep, at low tide, and as the foundations of this pier are sunk in the river silt 55 ft. this makes the distance from the surface of the river at low tide to the bottom, 135 ft., one of the deepest foundations sunk in America. On this is built a stone pier 35 ft. high, and on this in turn is a truss 50 ft. high, so that from the extreme top of the bridge to the bottom of this pier the distance is 215 ft. The pressure of the water at the bottom of the caisson used in sinking the foundation is too great for man to work at that depth, either in diving suits or by pneumatic process, being about 52 lbs. a square inch. The necessary excavating, therefore, is being done by open dredging system. The caissons are built on shore, of

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturer of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

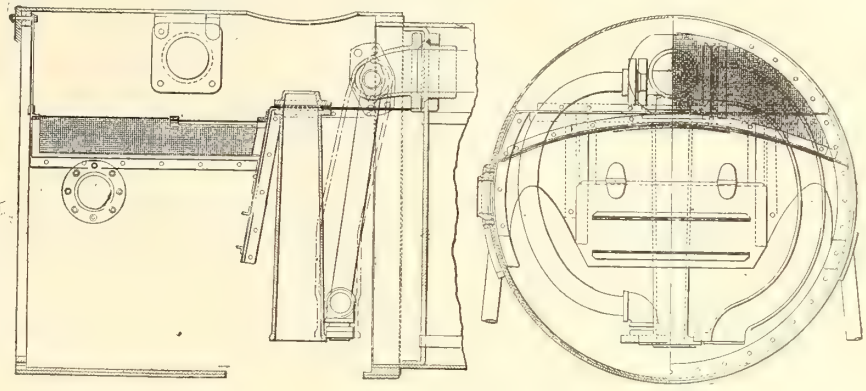
CHARLES MILLER,
PRESIDENT.

dressed timbers a foot square, and floated to the site of the pier. In the centre is a large well hole, but the surrounding sections of the caisson are at the bottom, of solid timber which tapers gradually to a cutting edge about a foot wide, furnished with steel. This framework being kept in position by piles, etc., the outer compartments are filled with concrete, and as the whole affair settles down, the walls and cross sections are built upon by timbers of like dimensions, so that there is always a considerable portion above the level of the river or the temporary wharf erected on the site. Eventually this huge concrete-laden frame reaches the river bottom, and then the work of raising the silt and other material commences. When the flow of silt, etc., stops, and only clear water comes up, the operators know something is wrong, and the long heavy pipes are hauled up and there is lowered in their place a heavy clam-shell dredging bucket, which grasps any boulder or tree trunk and never lets go until the obstruction has been removed. Nowhere else on this coast can this operation of the hydraulic jack and clam-shell companion be seen on such a large scale. The hydraulic jack, as this affair is called, is operated by a pump with a hydraulic pressure of 180 lbs. A large steel pipe, 5 or 6 in. in diameter, is put down to the bottom of the well. The deepest water was encountered at pier no. 3, though at no. 4 it was nearly as deep. At this point the water at low tide is 75 ft. deep. The foundations for some of the piers in the shallow water towards the Surrey side are piles. These were driven under great pressure deep down into the clear hard sand and gravel. In fact, hydraulic work had to be resorted to, to loosen this bed of natural cement-like sand and gravel. This now grips the piles and seals them, far below the bed of the river. The approaches on the Surrey side have required over 1,000 piles. The incline commences not far from the Liverpool station of the Great Northern Ry. and rises gradually till it reaches the level of the track on the bridge, the curve being near the Indian church at Brownsville. The traffic approach will lead from the upper floor of the bridge straight inland, the level being reached about a fifth of a mile back from the river, where connection will be made with the country roads, including no doubt the proposed Ladner river road extension.

The engineers for the bridge are Waddell & Hedrick, of Kansas City, Mo., and the contractors for the substructure are Armstrong, Morrison & Balfour, of Vancouver, B.C.

Compiled from New Westminster Daily Columbian.

A report on a visit to America, made in the autumn of 1902 by Lieut.-Col. H. A. Yorke, R.E., Chief Inspecting Officer of Railways, Board of Trade, London, Eng., which has been issued as a "blue book," contains an interesting account of trips over a number of United States steam and electric railways, and a comparison between them and lines in Great Britain, written in a thoroughly impartial manner. Naturally, Col. Yorke considers the methods adopted on railways in Great Britain superior to those in use on this side of the Atlantic in some respects, but the American practices most favorably impressed him in several instances, and he frankly admits their superiority in these cases. Col. Yorke's visit to Canada was very brief, only a couple of days, during which he came from Buffalo to Hamilton and Toronto. In sending us a copy of his report, he writes: "It was a matter of much regret to me that time did not allow me to visit some of the Canadian railways and to make myself acquainted with their methods of working, but it is my sincere hope that an opportunity may occur hereafter of my doing so."



G.T.R. LOCOMOTIVE FRONT END.

G.T.R. Locomotive Front End.

The G.T.R. is using a front end arrangement which combines simplicity with effectiveness. The illustrations on this page show the netting in the smokebox of a crossover compound. The receiver pipes are not shown, in order that the netting arrangement may be more clearly seen. The netting is put in as a rather flat arch of 8 ft. radius, which goes across the smokebox and springs from the sides about 6 ins. above the center line. The netting, which is cut to suit the receiver pipe, is carried back to the deflector plate, which is just in front of the exhaust pipe. The deflector plate is carried up a few inches above the highest point of the netting arch, and runs straight across the smokebox. In fact the deflector plate is placed at the level of the joint between exhaust pipe and exhaust nozzle. From the deflector plate to the flue sheet a solid no. 10, B. W. G. steel plate cuts off the space below the top tubes from that above, and through this horizontal plate the steam pipes pass with closely fitted openings. In the center of the netting there is a manhole 18x14 ins., which, when open, enables a workman to get his arms and head well into the upper chamber of the smokebox, and when in that position he stands directly in front of the exhaust pipe, and within reach of all joints, openings, flanges, etc., which he may wish to get at. A piece of upright netting, about the shape of a half-moon counterbalance, though larger, is placed in the front of the box. This prevents sparks or cinders from getting around the arched netting and from entering the upper chamber without being broken up in passing through the standard mesh. The deflector plate is not made so as to be adjustable. The central portion is cut in the form of a door, and is hinged from the top, which affords convenient ingress to the flue sheet. Our illustration shows the sides cut to suit the curves of the receiver pipe, but this plate is carried solidly across in other engines, which do not use receiver pipes. The determination of the position of the deflector plate is arrived at by test for a given class of engine, and when its most satisfactory position has been determined, all the engines of that class are equipped with non-adjustable deflector plates and a certain amount of what is generally called "grief" connected with front ends is thereby eliminated. The salient feature, however, about the whole arrangement, is its lack of complication and the room and convenience it affords to those who are compelled to work in the smokebox. Lifting up the hinged door in the deflector plate gives immediate access to the flue sheet, and removing the netting manhole cover in the netting gives access to the upper chamber. The rest of the smokebox appears to be positively roomy.—Railway and Locomotive Engineering.

RAILWAY FINANCE, MEETINGS, ETC.

British Columbia Electric Ry. Co.—Earnings and expenses for May:—

GROSS EARNINGS.	1902.	1903.	Increase or Decrease.
Railway—Vancouver division	\$11,514	\$13,522	\$2,008+
Victoria	9,854	10,359	605+
Westminster	8,795	10,902	2,107+
Lighting—Vancouver division	10,431	14,669	4,238+
Victoria	5,080	6,113	1,033+
	45,674	55,665	9,991+
Less working expenses	29,409	32,642	3,233+
	16,265	23,023	6,758+
Renewal funds	3,458	4,222	764+
Net income	12,807	18,801	5,994+
Aggregate gross earnings, July 1, 1902, to May 31, 1903	532,553	615,445	82,892+
Aggregate net earnings, July 1, 1902, to May 31, 1903	\$171,697	\$203,054	\$31,357+

Brockville, Westport and Sault Ste. Marie Ry.—On the motion for the third reading of this bill in the House of Commons, a number of amendments were proposed in the interests of the creditors. One provided that upon completion of the line the unearned subsidy, if Parliament sees fit to grant it, shall be paid over to the estate of the late James Cooper, of Montreal, who held an assignment of the subsidy as security for rails supplied. Another proposed that if the company asks for further powers a Parliamentary inquiry shall be held into the claims against the road for materials supplied, wages, dues, etc., while a third set forth that nothing in the act shall prejudice the claims in a suit pending in the court to determine whether the Ontario court had jurisdiction to order the sale of the railway. The matter was discussed at considerable length and the bill was finally passed. (July, pg. 223.)

Calgary and Edmonton Ry.—Net earnings for May \$28,093.47, against \$16,743.74 for May, 1902, making for five months ended May 31, \$128,841.54, against \$141,796.50 for same period 1902.

A special general meeting of the shareholders was held in Toronto when a resolution was passed sanctioning an agreement with the C.P.R. for the lease of the C. and E. Ry. for a term of 99 years. A further meeting of the shareholders has been called for Aug. 4, for the purpose of sanctioning the issue of debenture stock to the amount of £1,121,700 to carry out the arrangement made with the committee of the bondholders in England. (July, pg. 223.)

Canada Atlantic Ry.—At the current session of the Dominion Parliament an act was passed authorizing the increase of the capital from \$7,200,000 to \$10,200,000, and providing for the issue of a proportionate part of the

new stock as preference stock at not exceeding 5%; and authorizing an issue of bonds to the extent of \$35,000 a mile, in lieu of the bonding provision in the existing act.

Canada Eastern Ry.—The arrangement

for the re-organization of the various Gibson enterprises, which include the Canada Eastern Ry., has been postponed, owing to the unsettled condition of the money market. (Mar., pg. 105.)

American Locomotive Company

BUILDERS OF LOCOMOTIVES FOR ALL CLASSES OF SERVICE.

President, S. R. CALLAWAY.

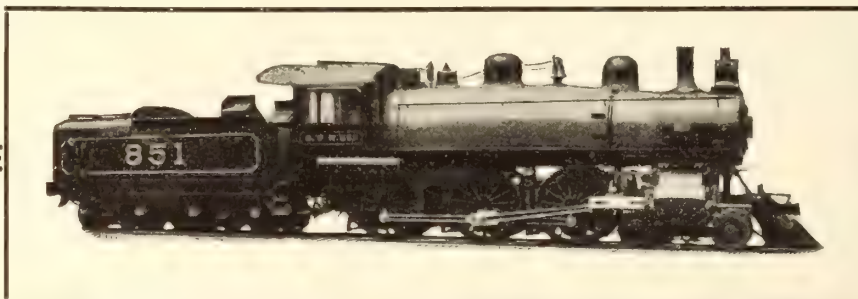
Secretary, LEIGH BEST.

Treasurer, C. B. DENNY.

Vice-President, A. J. PITKIN.

Second Vice-President, R. J. GROSS.

Mech. Engr., J. E. SAGUE.



SCHENECTADY WORKS, Schenectady, N. Y.

BROOKS WORKS, Dunkirk, N. Y.

PITTSBURG WORKS, Allegheny, Pa.

RICHMOND WORKS, Richmond, Va.

COOKE WORKS, Paterson, N. J.

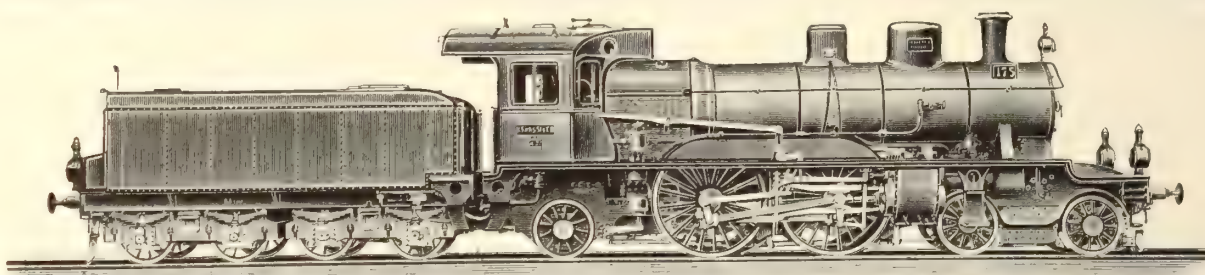
RHODE ISLAND WORKS, Providence, R. I.

DICKSON WORKS, Scranton, Pa.

MANCHESTER WORKS, Manchester, N. H.

GENERAL OFFICE

25 Broad Street, NEW YORK CITY.

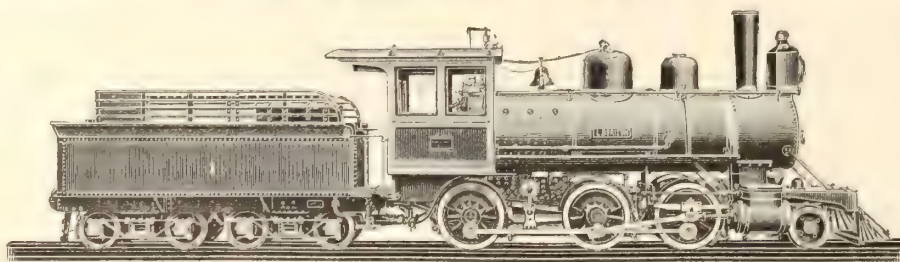


The Saxon Engine Works, late Rich. Hartmann, Limited

CHEMNITZ (Germany),

Carry on the construction of **LOCOMOTIVES** of every description.

**Number
of
Workmen,
5,200.**



**Capital,
\$3,000,000.**

Canadian Northern Ry.—Gross earnings:—

	1902-03.	1901-02.	Increase.
July.....	\$132,300	\$ 87,200	\$45,100
Aug.....	130,900	97,000	33,900
Sept.....	209,300	103,300	106,000
Oct.....	190,200	120,610	69,590
Nov.....	259,800	119,142	140,658
Dec.....	202,300	120,918	81,382
Jan.....	154,700	102,067	52,633
Feb.....	147,825	100,524	47,301
Mar.....	174,760	116,900	57,860
April.....	168,125	109,924	58,201
May.....	240,600	119,300	121,300
June.....	264,000	119,900	144,100
	\$2,304,750	\$1,334,785	\$969,965

The earnings, from all sources, of the C.N.R. for the fiscal year ended June 30 totalled \$2,448,000, being an increase of nearly \$1,000,000 over those of 1902. The working expenses amounted to \$1,588,000, and fixed charges \$637,000, leaving a surplus over working expenses and fixed charges of \$223,000. (July, pg. 223.)

Canada Southern Ry.—The lease of the line to the Michigan Central Rd. has been approved by the shareholders of the latter company. (July, pg. 226.)

Central Vermont Ry.—The C. V. Ry. which is the sub-lessee of the Brattleboro and Whitehall Rd., is opposing the application of that company for the appointment of a receiver on the ground that the road was allowed to run down and that not enough cars were furnished patrons. The C. V. Ry. Co. contends that the court has not jurisdiction to appoint a receiver for the causes alleged, and that a remedy can be had in other courts.

Chignecto Marine Ry.—The proposition to pay \$500,000 to the bondholders in settlement of any and all claims for compensation was submitted to Parliament by the Finance Minister, and the discussion has been held over. (July, pg. 223.)

Dominion Atlantic Ry.—Gross earnings for June \$81,400, against \$77,468 for June, 1902; making for six months to June 30, \$366,300, against \$379,960 for same period 1902.

Grand Trunk Ry.—The receivership of the Detroit and Toledo Shore Line was discharged July 1, and the line taken possession of by the G.T.R. and the Toledo, St. Louis and Western Ry. The mortgage of \$3,000,000 held by the Detroit Trust Co. has been discharged by the new owners. The management of the line will be under the control of a separate board of directors, of which C. M. Hays, of the G.T.R., is President; J. M. Morton, President of the Toledo, St. Louis and Western Rd., Vice-President, and J. H. Muir, Secretary-Treasurer. Press reports to the effect that the G.T.R. had acquired the Toledo, St. Louis and Western Rd., are denied by C. M. Hays, 2nd Vice-President and General Manager. (July, pg. 223.)

Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$ 102.75+
Feb.....	9,321.75	8,498.39	823.36+
Mar.....	10,195.12	9,761.37	433.55+
April.....	10,532.55	10,025.66	506.89+
May.....	10,768.11	11,126.66	358.55—
June.....	11,843.82	11,528.19	315.63+
	\$63,528.68	\$61,705.05	\$1,823.63+

Hamilton Radial Ry.—A payment of \$149 has been made to the Hamilton city council for mileage on the company's tracks within the city, for the three months ended June 30.

Hamilton Street Ry.—For the quarter ended June 30, the Hamilton city council has received from the H.S.Ry. Co. \$5,168, an increase of \$764 over the amount paid in the corresponding quarter of 1902.

Lake Erie and Detroit River Ry.—A special meeting of shareholders was called for July 27 to authorize the execution of a mort-

gage supplemental to and in amendment of the mortgage given to the National Trust Co., Aug. 1, 1902, to secure an authorized issue of bonds to the amount of \$5,000,000. The additional mortgage is also in favor of the National Trust Co.

N. W. Harris & Co. and R. Winthrop & Co. have acquired from the Pere Marquette Rd. the entire issue of \$3,000,000 4½% gold bonds, secured by a first lien on the Lake Erie & Detroit River division, through the deposit of \$3,000,000 5% first mortgage gold bonds of the Lake Erie & Detroit River Ry. (Mar., pg. 106.)

London and Port Stanley Ry.—The act respecting the rearrangement of the finances of the L. and P.S.Ry. Co. has been finally passed by the Dominion Parliament. (May, pg. 154.)

London, Ont., Street Ry.—Gross earnings:

	1902-3.	1901-2.	Increase or Decrease.
Dec.....	\$15,041.80	\$12,947.48	\$2,094.32+
Jan.....	12,132.54	10,117.60	2,014.94+
Feb.....	10,716.42	8,894.78	1,821.64+
Mar.....	11,533.68	10,233.21	1,300.47+
Apr.....	11,818.06	9,941.94	1,876.12+
May.....	13,144.76	12,233.68	911.08+
June.....	16,223.80	13,642.77	2,581.03
	\$90,611.06	\$78,011.46	\$12,599.60

Montreal St. Ry.—Earnings and expenses for June:

	1903.	1902.	Increase or Decrease.
Passenger earnings.....	\$205,454.13	\$132,875.27	\$72,578.86+
Miscellaneous earnings.....	3,293.23	4,787.06	863.83—
Total earnings.....	209,377.36	137,662.33	71,715.03+
Operating expenses.....	121,580.12	80,655.00	40,925.12+
Net earnings.....	87,797.24	107,007.33	19,210.09—
Fixed charges.....	24,197.58	19,391.91	4,805.67+
Surplus.....	63,599.66	87,615.42	24,015.76—
Expenses % of car earnings.....	59.18	44.10	

From Oct. 1, 1902, to June 30, 1903:

	1902-3.	1901-2.	Increase or Decrease.
Passenger earnings.....	\$1,546,525.35	\$1,424,182.66	\$122,342.69+
Miscellaneous earnings.....	25,415.96	20,997.57	4,418.39+
Total earnings.....	1,571,941.31	1,445,180.23	126,761.08+
Operating expenses.....	993,652.19	846,802.91	146,759.28+
Net earnings.....	578,289.12	598,287.32	19,998.20—
Fixed charges.....	134,667.11	144,298.70	20,368.41+
Surplus.....	443,622.01	453,988.62	40,366.61—
Expenses % of car earnings.....	64.25	59.47	

Interest on M. P. & I. Ry. Co.'s bonds owned by the Co. not included.

New Brunswick and Prince Edward Island Ry.—Press reports state that the option held by B. F. Pearson and others on the line has expired, and that negotiations for its purchase have been declared off. (July, pg. 225.)

New York and Ottawa Ry.—The United States Circuit Court at New York has altered the date fixed for the sale under foreclosure of this line to a date in Nov. yet to be fixed, and has extended the date of the payment of receiver's certificates, amounting to \$585,000, due on July 11, 1903, to Jan. 1, 1904. The receiver is H. W. Gays, of the Ottawa and New York Ry., Ottawa. (June, pg. 191.)

Ottawa Electric Ry. Co.—By an act passed at the current session of the Dominion Parliament the company has been authorized to issue bonds to the amount of \$1,000,000 in addition to the existing securities, and on the redemption of these the new bonds will become a first charge on the lines and property of the O. E. Ry. Co. (Mar., pg. 107.)

Pere Marquette Rd.—The regular semi-annual dividend of 2% on the preferred stock, and an initial dividend of 1% on the common stock has been declared. (July, pg. 225.)

Niagara River Line

THE NIAGARA-TORONTO ROUTE



For Lewiston, Queenston, Niagara-on-the-Lake, Niagara Falls, Buffalo, New York, Boston, Philadelphia, Cleveland, and all points South, East and West.

DIRECT CONNECTING LINES: At Lewiston, N.Y., New York Central and Hudson River R.R., and Great Gorge Road; Niagara-on-the-Lake, Michigan Central R.R.; Queenston, International R.R. Co.; Toronto, R. & O. Navigation Co., Canadian Pacific R.R., Grand Trunk R.R.

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The BEST in the WORLD.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for May \$4,418.13, against a net loss of \$9.12 for May, 1902; making for six months ended May 30, net earnings of \$21,297.54, against \$48,212.05 for same period 1902.

Quebec Central Ry.—The report of the directors presented at the recent annual meeting of the shareholders showed that after providing \$84,891 for the year's interest paid and accrued upon the outstanding prior lien bonds and 4% debenture issued, there remained a net revenue balance of \$117,338, which, added to the \$1,879 brought forward from 1901, made an available balance of \$119,217. The interest on the 3% second debentures amounted to \$49,348, and a dividend at the rate of 2 1/4% on the 7% income bonds had been declared absorbing \$37,011, leaving a balance of \$32,858. The interest on the income bonds for 1901 was at the rate of 1 1/2%. Up to Dec. 31, 1902, \$252,737 of the new 4% debentures had been issued. Of this amount \$198,000 had been used in retiring a like amount of prior lien bonds, and \$54,737 had been sold to provide funds for a portion of the requisite additional capital expenditure authorized by the Act of 1899. There remained \$152,000 prior lien bonds unexchanged on the 31st December, 1902. (July, pg. 225.)

Shuswap and Okanagan Ry.—Net earnings for three months ended Mar. 31, \$3,307 against \$2,755 for the same period 1902.

St. Thomas Street Ry.—It was reported to the St. Thomas, Ont., city council that the receipts of the street railway for June amounted to \$1,481.22.

Temiscouata Ry.—Net earnings for May, \$3,214, against for five months to May 30, net earnings of \$4,718.

Temiskaming and Northern Ontario Ry.—The T. and N. O. Ry. commissioners are offering for public subscription \$2,000,000 of 3 1/2% 30-year gold bonds, to be delivered Oct. 1; \$250,000, to be delivered Dec. 1; \$250,000 to be delivered Feb. 1, 1904, and \$250,000 to be delivered April 1, 1904. The total issue will consist of 5,500 bonds of \$500 or £102.14.10 each payable in gold in Toronto, New York, or London, Eng., 30 years from the date of issue, the interest of 3 1/2% to be payable half yearly on April 1 and Oct. 1 in each year. Tenders will be received to Sept. 12. The bonds are being issued under the provision of the act passed at the recent session of the Ontario Legislature, which authorized the commissioners to issue bonds to the extent of \$25,000 a mile of the projected railway at not exceeding 4% and redeemable within 40 years. (July, pg. 225.)

Toronto, Hamilton and Buffalo Ry.—Gross earnings for June, \$47,547.93 against \$35,380.91 for June, 1902.

Toronto Railway Co.—Car earnings:

	1903.	1902.	Increase or Decrease
Jan.....	\$161,938.22	\$137,135.21	\$24,803.01+
Feb.....	146,539.17	127,981.01	18,558.16+
Mar.....	159,913.85	141,681.22	18,232.63+
April.....	162,276.36	132,546.36	29,729.80+
May.....	174,519.58	145,195.54	29,324.04+
June.....	177,593.21	131,865.85	45,727.36+
	\$982,780.39	\$816,405.39	\$166,375.00+

On July 1, the total receipts amounted to \$9,988.83, an amount \$1,700 in excess of that taken on any previous Dominion day celebration in the history of the company.

White Pass and Yukon Ry.—Gross earnings for June \$279,000, making for the year ended June 30, \$1,726,807.

When the locomotive whistles on the docks at Athabasca Landing there will be brought into touch with commerce and traffic the most extensive system of internal navigation in the world.—Globe.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$3,246,620.51	\$2,070,900.25	\$1,175,711.25	\$79,844.32+
Aug. 3,554,184.56	2,191,283.11	1,362,901.46	57,269.36+
Sept. 3,651,481.42	2,240,726.92	1,410,754.50	58,022.78+
Oct. 4,127,402.07	2,511,267.44	1,616,134.63	149,095.41+
Nov. 3,976,068.87	2,417,828.63	1,558,240.24	117,362.10+
Dec. 3,959,146.15	2,286,704.31	1,672,441.84	103,750.33+
Jan. 3,148,455.27	2,231,684.50	916,770.77	96,309.97+
Feb. 2,827,294.65	2,084,553.96	742,740.69	68,380.01+
Mar. 3,615,752.57	2,357,188.11	1,258,564.46	203,649.50+
Apr. 3,795,394.50	2,302,221.19	1,493,173.31	201,466.68+
May 3,902,962.05	2,519,604.78	1,383,357.27	216,464.89+

\$39,804,762.62 \$25,213,972.40 \$14,590,790.42 \$1,351,615.35+

Approximate earnings for June, \$4,100,000, against \$3,114,000 for June, 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for May, \$244,305.46; net earnings, \$85,835.97, against \$226,553.41 gross and \$79,381.96 net for May, 1902. Net earnings for eleven months ended May 31, \$901,035.88, against \$895,293.35 for same period, 1901-02. Approximate earnings for June, \$268,913, against \$253,425 for June, 1902.

MINERAL RANGE RY.—Approximate earnings for June, \$50,027, against \$43,556 for June, 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for May, \$579,524.81; net earnings, \$243,847.91, against \$527,984.32 gross and \$245,003.84 net for May, 1902. Net earnings for eleven months ended May 31, \$3,230,724.15, against \$3,023,555.81 for same period 1901-2. Approximate earnings for June, \$618,646, against \$527,557 for June, 1902.

Canadian Pacific Railway Land Sales.

	Acres.	Amount.		
	1902-03	1901-02	1902-03	1901-02
July..	155,344.93	49,089.96	\$562,876.50	\$154,646.84
Aug..	130,723.83	50,747.82	473,064.85	165,871.16
Sept..	145,535.83	60,060.46	542,811.11	197,057.61
Oct..	270,616.23	150,572.96	952,645.35	465,655.62
Nov..	146,687.83	151,922.89	508,788.99	512,862.94
Dec..	577,382.61	132,151.16	1,683,289.45	403,261.78
Jan..	102,581.29	109,846.99	428,611.21	347,761.91
Feb..	183,554.82	78,039.43	749,235.13	256,156.70
Mar..	184,139.22	101,029.22	782,968.76	333,852.22
April..	207,344.12	231,127.11	884,432.24	695,071.68
May..	187,416.19	207,153.05	618,357.87	736,021.45
June..	349,524.43	244,673.54	1,421,451.13	877,622.18
	2,550,851.33	1,566,414.59	\$9,658,680.59	\$5,145,942.09

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase.	Decrease
Jan.....	\$2,634,200	\$2,278,978	\$355,222	....
Feb.....	2,432,661	2,018,926	413,735	....
Mar.....	2,967,408	2,537,873	429,535	....
April.....	2,787,054	2,436,756	350,298	....
May.....	2,913,553	2,574,198	339,355	....
June.....	3,008,626	2,503,824	504,802	....
	\$16,743,502	\$14,350,555	\$2,392,947	....

The following figures are supplied from the London, Eng., office:

GRAND TRUNK RY.

Revenue for May:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$482,500	\$422,000	\$60,500	....
Working expenses	319,100	266,000	53,100	....
Net profit, ..	\$163,400	\$156,000	\$7,400	....

Aggregate from Jan. 1 to May 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$2,267,200	\$1,946,700	\$320,500	....
Working expenses	1,597,800	1,285,500	312,300	....
Net profit,	\$669,400	\$661,200	\$8,200	....

GRAND TRUNK WESTERN RY.

Revenue for May:

	1903.	1902.	Increase.	Decrease
Gross receipts....	\$99,900	\$87,000	\$12,900	....
Working expenses	77,300	66,000	11,300	....
Net profit,	\$22,600	\$21,000	\$1,600	....

Aggregate from Jan. 1 to May 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$459,800	\$396,100	\$63,700	....
Working expenses	397,700	327,300	70,400	....
Net profit....	\$62,100	\$68,800	....	\$6,700

DETROIT, GRAND HAVEN AND MILWAUKEE RY.

Revenue for May:

	1903.	1902.	Increase.	Decrease
Gross receipts....	\$16,200	\$20,000	....	\$3,800
Working expenses	15,900	17,000	....	1,100
Net profit,	\$300	\$3,000	....	\$2,700

Aggregate from Jan. 1 to May 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	\$94,700	\$91,100	\$3,600	....
Working expenses	75,700	69,100	6,600	....
Net profit....	\$19,000	\$22,000	....	\$3,000

NOTE.—There were only 26 working days in 1903, compared with 27 working days in 1902.

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to June 30:

	1903.	1902.	Increase.	Decrease.
Grand Trunk....	\$2,778,920	\$2,373,604	\$405,316	....
G. T. Western....	549,787	466,202	83,585	....
D. G. H. & M..	113,587	108,935	4,652	....
Total.....	\$3,442,294	\$2,948,741	\$493,553	....

Recent Dominion Legislation.

The following acts relating to transportation interests have been passed at the current session of the Dominion Parliament, in addition to those mentioned in our last issue:

Respecting the Quebec Bridge Co., and changing its name to the Quebec Bridge and Ry. Co.

Respecting the Vancouver and Coast Kootenay Ry. Co.

Respecting the London and Port Stanley Ry. Co.

Respecting the Rocky Mountain Ry. and Coal Co.

Incorporating the New Canadian Co. (Ltd.) Amending the Customs' Act.

Providing for further advances to the Montreal Harbor Commissioners.

Respecting aid for the extension of the Canadian Northern Ry.

To aid in the settlement of railway labor disputes.

The Cooper-Hopkins Supply Co. (Ltd.) has been incorporated under the Dominion Companies' Act to carry on the business of manufacturers' agents, merchants, manufacturers and dealers in materials and supplies, mining, contractors' and railway supplies, etc., and to acquire the business carried on by James Cooper, of Montreal. The capital is fixed at \$100,000 and the head offices are to be in Montreal. The incorporators are: James Cooper, J. M. Ward, J. J. Rosevear, G. Milroy, and F. H. Hopkins. The incorporation was completed July 10, a few days before the death of Mr. Cooper. Mr. Hopkins who has been general manager for Mr. Cooper for a number of years and had an interest in the business, is at present in charge of the late Mr. Cooper's various business interests.

The House of Commons has inserted a clause in the act providing for the appointment of a railway commission to the effect that the railway companies shall furnish free transportation to members of the Senate and of the House of Commons, and for members and officials of the commission.

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RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Constructions, Betterments, Etc.

Algoma Central and Hudson Bay Ry.—In the circular issued by the President of the Consolidated Lake Superior Co., July 9, he says: "The period of construction has been passed, with the exception of the railway extension, on which work has been suspended." (July, pg. 221.)

Atlantic and Lake Superior Ry.—An attempt was made in the House of Commons to have the bill of the A. and L.S. Ry. Co., which had been thrown out by the Railway Committee, again placed on the list for consideration, but the House voted against the motion, and it was declared lost. (June, pg. 213.)

Atlantic, Quebec and Western Ry.—The application of the New Canadian Co. (Ltd.), incorporated in London, Eng., under the Joint Stock Companies' Acts, has been granted a Dominion charter by an act passed at the current session of the Dominion Parliament. The company has been granted power to construct terminals for the A.Q. and W. Ry. at Gaspé Basin, Que., and is stated to be the construction company for the railway. The directors of the company include C. B. K. Carpenter, and others who are promoters of the railway. (July, pg. 232.)

Bay of Quinte Ry.—Plans and profiles for the extension of the line from Tweed to Bannockburn, Ont., about 29 miles, have been deposited with the Public Works Department, Toronto. The grading of the line is in progress. (July, pg. 232.)

Belleville Street Ry.—The Belleville, Ont., city council recently decided to sell the rails of the abandoned street railway to the Belleville Portland Cement Co., for the line it is constructing from Belleville to Point Anne. An injunction has been obtained to prevent the sale at the price mentioned, \$10 a ton, as it is considered too low.

Brandon, Saskatchewan and Hudson's Bay Ry.—On the reconsideration of the application for the incorporation of a company with this title the Railway Committee of the House of Commons reduced the capital stock to \$1,000,000, limited the bonding powers to \$15,000 a mile, and refused to authorize the construction of a branch to the Souris river. The line authorized to be constructed extends from the International boundary between ranges 23 and 25 west of the principal meridian in Manitoba, via Brandon and Pas Mission to Fort Churchill, or some other point on Hudson's Bay; and the company is authorized to enter into an agreement with the Canadian Northern Ry. or any other railway company for amalgamation. (July, pg. 233.)

Brockville and Northwestern Ry.—See Brockville, Westport and Sault Ste. Marie Ry.

Brockville and Western Ry.—See Brockville, Westport and Sault Ste. Marie Ry.

Brockville, Westport and Sault Ste. Marie Ry.—The applications for acts respecting the B.W. and S.S.M. Ry., which were referred to a sub-committee of the Railway Committee of the House of Commons, in order to see if the various interests could not be harmonized so that the best interests of the line might be promoted, were again considered by the committee, on a report from the sub-committee. The sub-committee recommended the rejection of the applications in the interests of the Brockville and Northwestern Ry. Co. and of the Brockville and Western Ry. Co., and favored the passing of the application giving the purchasers of the line at the recent sale a title and other powers. The different questions at issue will be dealt with by the House of Commons. (June, pg. 213.)

Canada Atlantic Ry.—We were recently advised that the company's plans relative to the projected extension from near Whitney to Sault Ste. Marie, Ont., had not been formulated.

The logging line known as the Macaulay road, which runs from the Egan estate on the western division of the C.A. Ry. to C. J. Booth's timber limits, about eight miles, is to be extended a further distance of five miles. G. A. Mountain, Chief Engineer C.A. Ry., is making the survey.

Arrangements have been made respecting the crossing of the macadamized road in Nepean tp. by a spur line from the C.A. Ry. to some new piling grounds secured by Mr. Booth. Construction of the spur will be commenced as soon as the plans and the agreement for crossing the road have been approved by the Railway Committee of the Privy Council. (July, pg. 233.)

Canada Central Ry.—Press reports state that work will be begun on an early date on the construction of the section of the line between Sudbury, Ont., and the French river, and that the line from Scotia Jct. to Sault Ste. Marie will be completed in two years. F. H. Clergue, who is connected with the projected line, it is stated, will devote his whole time to the C.C. Ry. Co., but will retain his position as a director of the Consolidated Lake Superior Co. (July, pg. 233.)

Cape Breton Coal, Iron and Ry. Co.—It is proposed to construct an electric railway from the company's coal mines at Cochrane's lake, near Sydney, N.S., to Mira Bay, 4 miles, and to establish a shipping port there.

Cape Breton Electric Ry.—The line has now been completed to Queen's pit, finishing the construction in Sydney Mines, N.S., and a regular service was expected to be placed in operation by the end of July. (July, pg. 233.)

Cape Breton Ry.—Track has been laid into St. Peter's, N.S., and the first locomotive reached there from Point Tupper, 31 miles, June 19. Ballasting and other work is going on, and a regular train service is expected to be placed in operation on an early date. (June, pg. 213.)

Chateauguay and Northern Ry.—Considerable work has been done upon the C. and N. Ry. both in Montreal and on the mainland between Charlemagne and Joliette, Que. The total length of the line is about 34 miles, and it was recently reported that over 10 miles of grading had been done, and that it was expected that trains would be running over the whole line by the end of Sept. The entrance into Montreal will be alongside the line of the Montreal Terminal Ry., and on this section over three miles had been graded early in July, while the work was being pushed by a large force of men. On the mainland over six miles had been graded and a number of gangs of men were at work on different points of the route. The principal work on the line is the construction of the bridge over the two channels of the Ottawa river at Bout de L'Isle. Both the stone abutments on the west channel have been completed, together with piers 1, 2, 3 and 10, while the concrete foundations have been laid for piers 4 and 5. The Dominion Bridge Co. expects to have the superstructure on this section of the bridge completed in Sept. A temporary wooden bridge will be constructed over the eastern channel until the erection of the superstructure there early in 1904. On the mainland there will be three steel bridges on concrete piers. The substructure of the one at Lac Oureau river has been commenced. This will consist of two spans of 50 ft. each, and a central span of 140 ft.; a similar bridge will cross the L'Achegan river at L'Epiphany, while that near St. Esprit will have two spans of 30 ft. each with a central span of 70 ft.

The W. J. Poupore Co. have the general contract for the work, and F. A. Hibbard is engineer in charge.

An injunction was served on the Company to restrain it constructing its line through the property of A. Dulunde, Montreal. The case is still before the court. (July, pg. 233.)

Detroit River Bridge.—H. M. Perkins, of Detroit, Mich., recently stated that a syndicate of Detroit capitalists had been formed to construct a bridge connecting Windsor, Ont., and Detroit, Mich., and that work would be commenced as soon as the necessary Government permission had been obtained. (June, pg. 213.)

Duluth, Superior and Western Terminal Co.—P. Betts and F. H. Church, of Madison, Wis., have filed articles of incorporation in West Virginia for a company with this title for the purpose of building docks, wharves, warehouses and railroads in Wisconsin, Minnesota, and in Canada. The Company has also been registered to do business in Wisconsin.

Duluth, Virginia and Rainy Lake Ry.—Tracklaying has been completed to mileage 22.5 north of Virginia, and grading is in progress to mileage 40, near Pelican lake, about 45 miles south of Koochiching, opposite Fort Frances, Ont. (June, pg. 213.)

Elgin and Havelock Ry.—The work done on the E. and H. Ry. since the new owners took hold of it includes the repairing and strengthening of the bridges, the lifting and ballasting of the track, and the overhaul and repair of all station buildings. The line is now in first-class shape. All this work was done under the direction of P. S. Archibald, C.E., General Manager.

We are advised that nothing has been decided in respect of the proposed extensions for which parliamentary powers were obtained at the current session of the Dominion Parliament. It is understood, however, that work will be gone on with this year if Parliament grants the usual subsidies. (July, pg. 235.)

Grand Valley Ry.—A new station is being erected at Grand Valley Park near Brantford, Ont. A Brantford paper states that the city of Guelph is actively co-operating in the proposal to bring the G.V.Ry. into that city. (June, pg. 214.)

Great Northern Ry., U.S.—Plans are being prepared for the construction of a cut-off from Columbia Falls, Mont., on the main line to a point just north of Jennings, on the line from that town to the Canadian boundary, where connection is made with the Crow's Nest Southern Ry. to Fernie, B.C. The distance is 100 miles and will throw the main line of the Great Northern several miles north of its present position. The cost of the work will be \$2,000,000. The object of the change is to escape heavy grades between Columbia Falls and Jennings, which have been a source of delay and expense ever since the road has been built.

Halifax and Southwestern Ry.—The Halifax city engineer and T. H. White, chief engineer of the line, have been in consultation respecting the road crossings on the proposed entrance into the city. The clearing of the route in the vicinity of the city has been nearly completed. About a mile of track has been laid from Mahone towards Halifax and bridge building materials, etc., are being hauled in. (July, pg. 235.)

Halifax Electric Tramway.—The new power station, which is estimated to cost \$200,000, is expected to be completed by the end of the year. The new building will contain boilers and engines with a capacity of 45,000 h.p. Adjoining there has been erected a coal handling plant, and on the land reclaimed during the construction of the pier, a large coal warehouse is to be erected. (June, pg. 214.)

Hampton and St. Martin's Ry.—This line has not been operated for some time, but recently a number of local men arranged to operate it as soon as they could organize a company to do so. Pending this the line is being repaired and got ready for traffic. A number of bridges have been repaired and a portion of the line reconstructed, owing to an extensive wash out. R. Carson, S. E. Vaughan, E. A. Titus, T. Titus and W. E. Skillen are interested in the new company.

Huntsville and Lake of Bays Ry. Plans for the construction of a one mile piece of railway on the portage between Lake of Bays and Peninsula Lake have been filed in the Department of Public Works, Toronto. A deputation from the company recently waited on the Premier of Ontario to ask that the Government would recommend the granting of a subsidy for the line. It is understood that the application will be favorably considered. (July, pg. 235.)

Intercolonial Ry.—The supplementary estimates under consideration in the Dominion Parliament include \$470,283.49, for the I.C.R., distributed as follows: Exchange drawbars for freight cars, \$15,000; to equip passenger cars with vestibules, \$8,000; to increase accommodations at Levis, \$76,500; towards improving the ferry service at Strait of Canso, \$20,000; improvements at Nicolet Station, \$600; towards building a branch from Riviere Quelle Station, \$30,000; air-brakes to freight cars, \$10,000; steel rails and fastenings, \$275,000; Eastern Extension Railway of N.B., balance, \$1,250; Eastern Extension Railway, Nova Scotia, \$5,184.49.

Tenders are under consideration, or will be received early in August, for the following works: baggage and express rooms at Levis, Que.; engine house at Ste. Flavie, Que.; conductor's room, express room, etc., at Moncton, N.B.

Press reports state that a new round house will be erected at Halifax, near Africville, and that it will be used by the Dominion Atlantic Ry. and the Halifax and Southwestern Ry., as well as by the I.C.R.

The new bridge over the northwest Miramichi river, N.B., has been completed, and work is in progress preparing for the placing of the superstructure for the bridge over the southwest river. The work is being done by the Dominion Bridge Co., Montreal.

The new station at Levis has been completed and the offices were removed there July 6. (July, pg. 235.)

Kingston and Frontenac Ry.—The act incorporating a company with this title was passed at the last session of the Ontario Legislature. (July, pg. 236.)

Lake Erie and Detroit River Ry.—The freight sheds at Walkerville were considerably damaged by fire July 2. Additional freight shed and siding accommodation is needed at London, Ont., and negotiations are in progress with the city council and others in respect thereto. (July, pg. 237.)

Lindsay, Bobcaygeon and Pontypool Ry.—A contract for the construction of this line has been let to E. F. Fauquier, Ottawa, and work is to be commenced immediately. It is expected to complete the line from Burketon station on the C.P.R., to Bobcaygeon, Ont., by Jan. 1. The right of way touches the Scugog lake and river at several points, making the delivery of ties and other material comparatively easy. A large portion of the right of way has been purchased, and the balance is being secured as rapidly as possible.

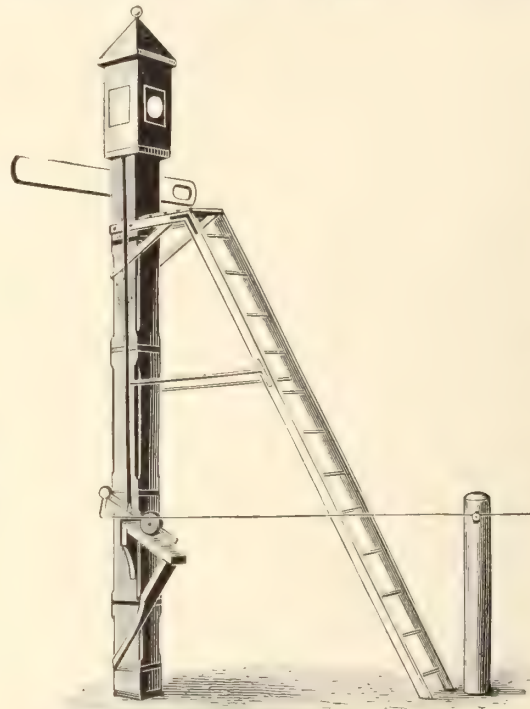
Plans and profiles have been deposited with the Department of Railways at Ottawa. The route chosen from Lindsay to Burketon is the most direct possible, and an exceptionally good, comparatively level line has been secured. The grades against south-bound traffic average 45 ft. to the mile, and against north-bound traffic will be 53 ft. The maximum of

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curves is 4°. The line from the southern boundary will follow the river bank and Lake Scugog until it passes Cæsarea about one and a-half miles, when it makes a slight curve and runs directly to Burketon, where it joins the main line of the C.P.R. with a Y. It will pass Janetville about two and a half miles east. (July, pg. 237.)

Mabou and Gulf Ry.—Bids are being asked for the construction of the extension of this line from the crossing of the Inverness Ry. and Coal Co.'s line, near Mabou, N.S., to Orangedale on the I.C.R., about 34 miles. (May, pg. 149.)

Manitoba Cement Co.—The town of Morden, Man., has offered a free site for the company's mill and other advantages, together with a free right of way for the railway to the marl deposits. The directors have accepted this offer and preparations are being made to go on with the buildings and the construction of the railway. The railway will be about 14 miles in length. (April, pg. 119.)

Manitoulin and North Shore Ry.—F. H. Clergue recently stated that the projected line from Sudbury to Manitoulin Island, a portion of which has been constructed, has not been abandoned, but that construction on it will be proceeded with simultaneously with the projected Canada Central Ry. (April, pg. 119.)

Middleton and Victoria Beach Ry.—This line, which is under construction from Middleton to Victoria Beach, N.S., about 40 miles, is reported to have been acquired by Mackenzie, Mann, & Co. (May, pg. 149.)

Montreal and Southern Counties Ry. (Electric).—Negotiations are in progress between A. J. DeB. Corriveau and the officials of the Central Vermont Ry. respecting the construction of a bridge over the Richelieu river between St. Johns and Irberville. The C.V. Ry. has a bridge at this point, but it is proposed to erect a new one suitable for the railway, electric railway, and ordinary traffic. (July, pg. 237.)

Montreal Bridge Co.—The application of this company at the current session of the Dominion Parliament for an act extending the time for the commencement and completion of its undertaking, and to change its name to the Montreal Bridge and Terminal Co., was withdrawn. (April, pg. 119.)

Nelson and Fort Sheppard Ry.—A considerable portion of the track between Waneta and Northport, B.C., was recently washed out, and traffic was suspended for several days. The line is considerably exposed in this section, and is always in considerable danger during heavy rains and floods.

Nepigon Ry.—J. Conmee, M.L.A., says that the projected line from Nepigon station on the C.P.R. transcontinental line, to Nepigon Lake, about 40 miles, will be commenced at once, and will be completed this year. The company will construct its own terminals, and J. Conmee has the general contract for the construction of the line. A contract for 100,000 ties was let to A. Seaman, and these are in course of delivery. The new line will follow the valley of the Nepigon river to the south end of the lake. It is intended to carry the line to a junction with the Government section of the Grand Trunk Pacific line, which it is expected will pass about 30 miles north of Lake Nepigon. (July, pg. 237.)

North Colchester Ry.—The Midland Ry. Co. of Nova Scotia, which owns the charter of the N.C. Ry., which has power to construct a line from Truro to a point on Northumberland Strait, N.S., expects to have all preliminaries completed this year, but will not commence actual construction until early in 1904. (June, pg. 217.)

North Shore Ry., Power and Navigation Co.—We are advised that the track from the

shore of the bay of Seven Islands, to the falls of Ste. Marguerite river, Que., about 9 miles, has been laid, and that the dock, which is under construction, to 36 ft. of water, will be completed by Nov. 1. Active preparations are being made to start work on the dam and the pulp mill. On July 16 the force at work consisted of 200 men, with steam shovel, locomotives and a first-class outfit of modern construction. M. Connolly is the contractor, and H. Holgate, of Ross & Holgate, is engineer in charge. (July, pg. 239.)

Ottawa Valley Ry.—The application of the O.V. Ry. Co., which has a 10-mile line from St Andrews to Lachute, Que., to extend its line to Montreal, and to acquire the Carillon and Grenville Ry., was defeated in the House of Commons. The original promoter of the bill was C. N. Armstrong, who was also the promoter of the Atlantic and Lake Superior Ry., which was intended to amalgamate a large number of small railways, so as to have a line from the Atlantic ocean at Gaspé to Lake Superior. The O.V. Ry. was one of the small lines it was intended to include in the amalgamation, which was never completed. In the course of the discussion it was stated that C. N. Armstrong did not have any interest in the project, the present shareholders being local people who desired to have a railway constructed through a now unserved district.

Peterborough and Ashburnham Street Ry.—See Peterborough Radial Ry.

Peterborough Radial Ry. (Electric).—The Peterborough, Ont., city council, July 28, granted a franchise to the Peterborough Radial Ry. in respect of its electric line within the city. The P. R. Ry. Co., which is practically the American Cereal Co., acquired the charter of the Peterborough and Ashburnham Street Ry., which line has not been operated for some time, and has power to construct an extensive system of radial railways, with Peterborough as a center. These lines are projected to run to Lakefield, Young's Point and Chemong. Under the franchise agreed to five miles of line are to be in operation not later than July 1, 1904. (Aug. 1902, pg. 267.)

Prince Edward Island Ry.—The supplementary estimates under consideration by the House of Commons for the P.E.I.R. amount to \$467,500, and include: addition to freight house at Mount Stewart, \$300; to straighten line at Blue Shank, \$4,000; Murray Harbor Branch and Hillsboro Bridge, \$450,000; to provide and lay steel rails, \$13,400.

The question of straightening the curve at Milton is not yet advanced to the stage when any decided information can be given out by the officials.

Tenders were received up to Aug. 1 for the construction of nine stations, two water tanks and an engine house for the Murray Harbor branch. (July, pg. 240.)

Quebec Bridge and Ry. Co.—By an act passed at the current session of the Dominion Parliament the title of the Quebec Bridge Co. has been changed to that of the Quebec Bridge and Ry. Co.

We are advised that erection of the superstructure for the spans between the anchor piers and abutments is being gone on with, and that preparations are being made for the manufacture of the steel for the main spans. The railway connections are not finally determined upon, but it is expected that all arrangements will be made during the summer. (July, pg. 240.)

Quebec, New Brunswick and Nova Scotia Ry.—The act incorporating a company with this title has been passed by the House of Commons. The route finally adopted is to be from a point on the Canadian Northern Ry. near Quebec bridge, and by the shortest route to Moncton, N.B., and thence to Pugwash, N.S., with permission to build a branch

line to St. John. The line is not to approach nearer than five miles to the Quebec and New Brunswick Ry. unless by agreement on order of the Governor-General-in-Council. (May, pg. 151.)

Sandwich, Windsor and Amherstburg Ry. (Electric).—The extension of the line from Ojibwa to Amherstburg, Ont., was opened for traffic July 10. (July, pg. 241.)

Schomberg and Aurora Ry.—An action is being heard at Toronto against the S. and A. Ry. Co., by shareholders of the Metropolitan Ry. who acquired the shares of Capt. Armstrong and other promoters of the line, for damages for breach of contract. The allegation is that the plans for the railway were changed in such a way that the line was not built to Lloydtown. An endeavor was made to effect a settlement, but it failed and evidence is being taken by Judge Winchester. (Feb. pg. 46.)

Sherbrooke, Que. Street Ry.—Some further negotiations are in progress between the company and the city council in respect of the proposal to lay double track on Bridge street, and for some extensions of track in East Sherbrooke. (July, pg. 241.)

Southwestern Traction Co. (Electric).—The overhead work on the section of the line from London to Lambeth, Ont., was expected to be completed by the end of July. The entrance into London has not been decided on, and cars will not be operated until the arrangements for this are completed. (July, pg. 241.)

St. Thomas Street Ry. (Electric).—The St. Thomas, Ont., city council is making application to the railway committee of the Privy Council, for permission to construct a subway at Ross st., and level crossings for the street railway at William st., and Elgin st., across the Michigan Ry. Co.'s tracks. (July, pg. 241.)

Temiskaming and Northern Ontario Ry.—We are advised that it is hardly likely that any stations will be built on the line this year. Tracklaying was proceeded with rapidly until July 24 when, owing to the demands of the men for higher wages, work was suspended. The ties for the whole of the 70 miles to be completed this year have been delivered. The Commissioner of Public Works and a number of officials recently went over the line as far as New Liskeard, the proposed terminal. (July, pg. 241.)

Toronto Ry.—An application has been made to the York township council by the Toronto Ry. Co. respecting the construction of a line from the city boundary on Avenue road to the Upper Canada College. The company suggests that the township council construct the line, in return for which the company would operate it, giving a five cent fare to and from all points in the city. The matter was referred to a committee. The company proposes extending its line on Avenue road in the city, and is negotiating for power to extend the line to the city boundary. (Feb. pg. 49.)

Vancouver and Coast Kootenay Ry.—By an act passed at the current session of the Dominion Parliament the V. and C.K. Ry., for which a B.C. charter was passed in 1902, has been declared to be a work for the general advantage of Canada. The contracts made with the B.C. Government under the provincial charter have been confirmed, and the other arrangements made in connection therewith approved. The capital stock is declared to be \$10,000,000, and power is given to enter into agreements with other companies, but it may not lease its line to, or amalgamate with the C.P.R., or any line leased to the C.P.R. (Feb. pg. 49.)

Vancouver, Westminster, Northern and Yukon Ry.—Application has been made to the city council for the approval of the plans

for the entrance of the line into the city. The company asks that the city give $3\frac{1}{2}$ acres of land at the head of False creek on the south side for railway yards and a privilege to build from there to the Royal City mills, crossing all street ends. The company also wants the city to open Keefer street and Columbia avenue, so that the station site will be more easily accessible. From Westminster avenue to Granville street the company wants the privilege to build a trestle work down False creek to carry their tracks to the shingle mills and other manufactories along the waterfront. The matter has not been decided upon by the council. (July, pg. 243.)

Canadian Northern Ry. Construction.

Branch from Warroad.—Press reports state that the contract for the branch from Warroad, Minn., for 25 miles into the Badger district, will be let on an early date, and that work will be started this year. The same report also states that the branch will ultimately be carried to a junction with the Thief River branch of the Great Northern Ry., U.S., at Thief River Falls, Minn.

Branch Through Springfield. We are advised that the final surveys for the line through Springfield have not been completed, but that it is intended to construct the line this season. (July, pg. 243.)

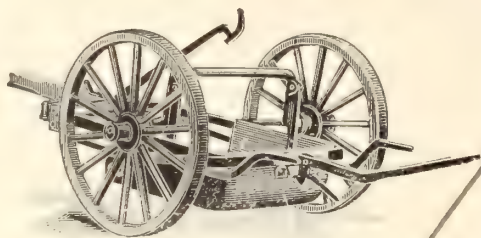
Branch to Oak Point.—We were advised July 16 that 18 miles of track had been laid on the old Winnipeg and Hudson's Bay line, from Winnipeg, and that it was expected to have the grading completed to Oak Point, on Lake Manitoba, 53 miles from Winnipeg, a few days thereafter. It is expected that track will be laid into Oak Point this season. The entrance of the line into Winnipeg has not been definitely decided and will not be until the Railway Committee of the Privy Council has approved of the route and given permission to cross the C.P.R. tracks in the north end. The proposed route as laid down by the C.N.R. is along Rachel st., and thence out of the city in a northwesterly direction. (July, pg. 243.)

Greenway Southwesterly.—The location of the 40-mile branch from Greenway, on the Morris-Brandon line, southwesterly, has been definitely located for 20 miles. Beyond that point there is a piece of very heavy work, and surveys are being made with a view of avoiding it. The route located runs due south for about six miles, then turns westerly, passing through Glenora, and between Rock Lake and Louise Lake. The terminal point of the branch will lie at the base of Turtle Mountain. Grading is in progress on the first 20 miles of the branch, A. R. Mann being the contractor. (July, pg. 243.)

Hartney to Virden and Westerly.—Surveys are in progress for the branch projected from Hartney, on the Hartney extension of the Morris-Brandon branch, to Virden and westerly. (May, pg. 174.)

Carberry to Neepawa.—The line from Carberry northerly passes near Petrel and through Oberon to a junction with the line constructed in 1902 from Katrim to Neepawa. It is intended that the line will be carried south from Carberry, about 5 miles to a junction with the line now under construction from Portage la Prairie, through the Rosendale district. Up to June 30, we were recently advised, that 7 miles of grade had been completed on this branch. W. J. Cowan is the contractor. (July, pg. 243.)

Portage la Prairie Southwesterly. The route located for this line runs in a straight line southwesterly from Portage la Prairie to Rosendale, about 20 miles, and then will run due west, ultimately reaching Brandon, which is about 55 miles from Rosendale. We were



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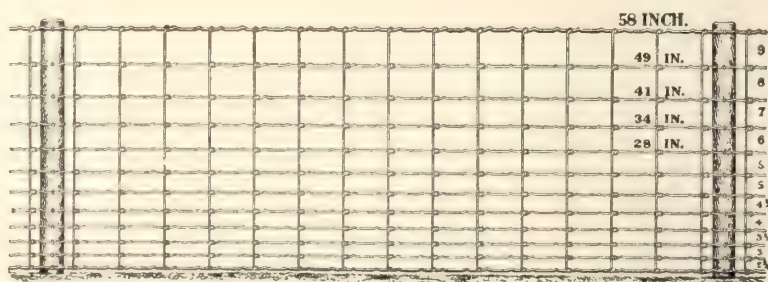
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recently advised that 17 miles of the grade had been completed. The contractor is A. C. Mackenzie. (July, pg. 243.)

Rosburn Branch.—Grading is being pushed on this line which will extend from Rosburn Jct., about 10 miles north of Neepawa, to the western boundary of the province. Of this line 13.1 miles were completed in 1902. The work in progress this year is not in direct construction of this line, as the route is not finally approved of, an endeavor being made to secure a change of route between Clanwilliam and a point about five miles northwest of Indian Reserve no. 67. Grading is in progress between this latter point and a point near Ranchvale, the route located passing through or near Glenforse, Elphinstone and Oakburn. It is expected that 85 miles of this branch will be completed this year. The McDonald, McMillan Co., of Westbourne, Man., are the contractors. (July, pg. 243.)

McCreary Branch.—Tracklaying on this branch has been completed, and it was expected that the surfacing-up would be finished so as to permit of the running of trains from Neepawa by the end of July. (July, pg. 243.)

Manitoba Branches.—In respect to the other branch lines, for the construction of which the Manitoba Government was authorized at the last session of the Legislature to guarantee bonds, the surveys have not been undertaken owing to the difficulty of obtaining engineers for locating purposes. It was expected that the difficulty would be overcome and the work undertaken later in the season. The branch lines to which this refers are: Roland or Myrtle to Morden, 20 miles; Minto or Elgin, southwesterly, 30 miles; Fairfax to Souris, 15 miles. (July, pg. 243.)

Prince Albert and Edmonton Extensions.—The act authorizing the guarantee of bonds in respect of the construction of the 100 miles from Prince Albert easterly, and for the line from Grand View to Edmonton, about 620 miles, has been passed by the Dominion Parliament. (July, pg. 244.)

Grand View—Edmonton Extension.—The following contractors are at work on this extension: G. H. Strevel, Winnipeg; The McDonald, McMillan Co., Westbourne, Man.; Alex. Fisher, Winnipeg, and J. D. McArthur, Winnipeg. It was expected that another contractor would be started between the contracts of the two last named by the end of July. The right of way to the south Saskatchewan river is all under contract, and it is expected that track will be laid to that point before the freeze-up. The work on the substructure of the bridge over the south Saskatchewan river is being pushed under the charge of the C. N. Ry. foreman. (July, pg. 244.)

Swan River Branch.—A contract has been let to John Hunter, of Swan River, Man., for grading the branch from Swan River southwesterly to the boundary of Manitoba, about 20 miles. Work will be commenced immediately thereon. (April, pg. 131.)

Prince Albert Extension.—It is intended to get the track laid as far as Prince Albert this year, 180 miles from Erwood, but if this is not possible, Melfort will at any rate be reached. The contractors who are grading on the extension are: Neil Keith, A. D. Mann, and Stanley & Gerrond. (July, pg. 244.)

Hudson's Bay Line.—A survey party left Prince Albert, Sask., recently on a trip to Cumberland House, via the Saskatchewan river, from which point the survey to Hudson's Bay will be started. The party is not expected to return until the winter.

Edmonton.—M. McCrimmon, of Edmonton, Sask., is grading the line to the new station and yards at the Hudson's Bay reserve recently acquired, and as soon as this work is finished, he will work easterly on the main

line. Although the distance between the terminal point of the line completed in 1901, and the site of the station is only five blocks apart it is necessary to construct about $4\frac{1}{2}$ miles of line to connect them, owing to the height of the hill. (July, pg. 244.)

C.P.R. Betterments, Construction, Etc.

Sand Point Wharves.—The permanent repairs to the wharves at Sand Point, St. John, N. B., and the construction of the new conveyors from the C.P.R. elevator, necessitated by the fire, are being delayed until it is seen whether any alteration in the plans will be required, on the approval by the city council of the plans for No. 4 shed. (May, pg. 179.)

Seboois Sinkhole.—A sinkhole near Seboois, Me., 314 miles from Montreal, which from time to time has given a good deal of trouble, has been filled in, and the new embankment is completed. One of the gravel trains employed upon the work has been taken off and placed at work ballasting on the Maine sections of the Atlantic Division.

East End Stock Yards.—C. W. Spencer, General Superintendent of Transportation, Eastern Division, recently waited on the finance committee of the Montreal city council to arrange for the enlargement of the stock yards at the east end. An appropriation of \$47,000 was asked for this purpose. The question was held over for full consideration.

Chateau Frontenac, Quebec.—Sir T. G. Shaughnessy, President C.P.R., recently visited Quebec in connection with the projected extension of the Chateau Frontenac. The proposal is to erect a new building in the Lower town, directly below the Terrace and facing the present structure. The new building will be run up to a height on a level with the Terrace, and the main office will be in the Lower town. An elevator will carry passengers from the new to the present structure and vice versa. A definite decision as to what will be done has not been arrived at. (Feb., pg. 52.)

Caledonia Springs Hotel.—The hotel at Caledonia Springs, Ont., has passed under the control of the C.P.R., the price paid, press reports state, being \$100,000. A number of improvements are being made to bring the hotel in line with the other hotels belonging to the C.P.R.

White River, Ont.—Office buildings and houses for employees are under construction at White River, Ont., to which point the officials, now at Schrieber, will be removed.

Fort William Elevators.—Press reports state that the C.P.R. contemplates the erection of a 6,000,000-bush. storage elevator at Fort William, Ont.

Winnipeg Station and Subway.—In connection with the erection of the new station, the agreement for the construction of which has not been reached, the Postmaster-General recently stated in the House of Commons, that provision was to be made in the new building for a post office department. If the C.P.R. did not immediately proceed with the construction of the station the Government would consider the question of erecting a new building at the station for the department. (July, pg. 245.)

Winnipeg Yards.—The following details have been published relative to the alterations and improvement in progress and to be made at the Winnipeg yards. About 350 acres of land have been acquired for additions to the yards, and some 35 miles of additional sidings will be laid. The land embraced in the addition to the yards is about half a mile wide by about a mile long. It is bounded on the east by McPhillips st. and on the west by Keewatin st. The southern boundary is the line between blocks 11A and 35 St. John, and the

northern boundary—the line between blocks 35 and 36 St. John. All the important additions will be located in the newly acquired ground except the cattle yards. These will be to the south of the main line and east of McPhillips st., which extend along Fonseca st., where they will have a frontage of 1,000 feet; their width will be 250 feet and the yards will have accommodation for feeding, watering and rest purposes. The plans are so laid out that the yards can be extended westwardly as the increase in the cattle trade goes on. The additions to and reconstruction of the yards will include a change of tracks in several of the branch lines. The branches to Souris, Teulon and Selkirk and Winnipeg Beach will be moved further west from their present diverting points. The new buildings to be put up will include two passenger car shops, 100 x 240 feet; a freight car shop, 100 x 400 feet; a planing mill, 100 x 200 feet; power house, 100 x 100 feet; blacksmith shop, 100 x 200 feet; locomotive shop, 162 x 700 feet; foundry and stores building, 100 x 100 feet; freight sheds, 100 x 400 feet. Besides these there will be additional storehouses, oil houses, coaling sheds and bins and new stock yards. (July, pg. 245.)

New Westminster, B.C.—The C.P.R. has decided to appeal to the Government against the decision of the Railway Committee of the Privy Council giving the Vancouver, Westminster, Northern and Yukon Ry. an entrance into the city. The V.W.N.Y. Ry. is practically the Great Northern Ry., U.S., and the route by which it is proposed to get into New Westminster crosses the C.P.R. tracks, and, it is alleged, interferes with the C.P.R. right of way.

Vancouver, B.C.—A spur line is under construction from the southern end of Granville st., along the south side of False creek. McQuarrie & Co. are the contractors.

Victoria, B.C.—The C.P.R. is negotiating for a site in Victoria on which to erect a building for office purposes.

G.T.R. Betterments, Construction, Etc.

Track Elevation in Montreal.—The Chairman of the level crossings committee of the Montreal city council recently had an interview with the management relative to the building of a viaduct, so that the tracks may be raised from St. Henri into Montreal. The interview terminated with a message from the management to the members of the level crossings committee to the effect that the company at the present time was much disposed to have the level crossings abolished. The company wished the city council to know that it would pay half the cost of the improvement. The cost of the work is estimated at \$4,000,000. The question is under discussion. (June, pg. 195.)

Toronto Freight Sheds.—The application for the construction of crossings at John and Front streets, Toronto, in connection with the new yards on the old Parliament Buildings grounds is being considered by the railway Committee of the Privy Council. (July, pg. 243.)

The Dufferin Street Crossings.—The G.T.R. has made application to the Toronto city council for permission to construct an additional crossing over Dufferin st., and the matter is under consideration.

Burlington Swing Bridge.—The new swing bridge over the canal at Burlington Beach, Ont., on the old Northern and Northwestern Ry., has been opened for traffic. The bridge is 372 ft. in length and is swung by electric power. It cost about \$80,000.

London Switching Agreement.—An agreement has been reached between the railway companies entering London, Ont., respect-

ing the switching transfer of cars from one company to the other, and from the manufacturers' spur lines in the city. By the agreement the G.T.R. will immediately construct a connecting line with the C.P.R., and will enter into negotiations with other railways for general interswitching arrangements.

Sarnia Tunnel.—We are advised that the question of adopting electricity as a motive power at the Sarnia tunnel is, and has been for a long time under the consideration of the management; no definite decision has been reached.

Ontario, Sault Ste. Marie Ry.—An act was passed at the recent session of the Ontario Legislature reviving the act incorporating a company with this title to construct a railway from near Gravenhurst, via French river to Sault Ste. Marie, Ont., with power to construct branches to lake Nipissing and lake Timiskaming. The charter is held in the interests of the G.T.R., and the application for its revival was made by John Bell, K.C., of Belleville, General Counsel for the G.T.R. The last meeting of the directors was held in 1893, and the act now passed authorizes the surviving directors to meet within two months of the passing of the act for reorganization. The time for the completion of the line is fixed for five years from the date of the act.

The shipment of coal from the Nova Scotia collieries during the six months ended June 30, amounted to 2,212,570 tons, an increase of 435,547 tons over the shipments for the same period, 1902. The following were the shipments of the principal companies: Dominion Coal Co., 1,378,183 tons, increase 168,895 tons; Cumberland Ry. and Coal Co., 230,438 tons, increase 43,836 tons; Nova Scotia Steel and Coal Co., 177,716 tons, increase 68,199 tons; Acadia Coal Co., 168,953 tons, increase 62,466 tons; Intercolonial Coal Co., 114,428 tons, increase 24,087 tons; Inverness Ry. and Coal Co., 59,575 tons, increase 34,475 tons.

The Dominion Government has chartered the Newfoundland Government str. Neptune to convey a scientific expedition to Hudson's Bay. The object is to determine the availability of the bay for a Canadian grain route. The expedition, which will winter at Chesterfield Inlet, will be under the command of Capt. S. Bartlett.

Sir William Van Horne has declined to act on the proposed transportation commission. It was recently stated in the House of Commons that the Government was considering whether it should postpone the issuing of the commission until Sir W. Van Horne was in a position to act, or to appoint someone else in his place.

The Michigan Central Rd. has adopted the telegraph for use on its line. The system which permits the use of telegraph wires simultaneously for telegraphing and telephoning, has been in use for some time on the company's line between Detroit, Mich., and St. Thomas, Ont., 111 miles.

The C.P.R. steamship Monterey recently went ashore near St. Pierre, Miquelon, and has been abandoned to the underwriters. The cause of the stranding is said to be due to the inefficient lighting of the French islands there. This is the first disaster to the C.P.R. Atlantic fleet.

The Melbourne (Australia) papers, recently received, give full particulars of the receipt there of T. Tait, chairman of the Railway Commission of Victoria.

The Canadian Northern Ry. commenced running a daily fast passenger train between Port Arthur, Ont., and Winnipeg, Man., July 12.

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THE GRAND TRUNK PACIFIC RY.

The agreement between the Dominion Government and the G.T.R. directors and officials, acting on behalf of the Grand Trunk Pacific Ry. Co., was published July 30, and the "act to provide for the construction of a national transcontinental railway" was introduced in the House of Commons by the Premier. The agreement is signed by W. S. Fielding, acting Minister of Railways, on behalf of the Government, and by C. M. Hays, 2nd Vice-President and General Manager, and W. Wainwright, Comptroller, of the G.T.R., on behalf of the second party. The representatives of the Grand Trunk Pacific Ry. Co. mentioned in the body of the agreement are: Sir C. Rivers Wilson, Lord Welby, J. A. Clutton Brock, Joseph Price, A. W. Smithers, of London, Eng., directors of the G.T.R.; C. M. Hays, 2nd Vice-President and General Manager, F. W. Morse, 3rd Vice-President, and W. Wainwright, Comptroller, all of the G.T.R., Montreal.

The preamble sets forth that "having regard to the growth of population and the rapid development of the production and trade of Manitoba and the Northwest Territories, and to the great area of fertile and productive land in all the Provinces and Territories as yet without railway facilities, and to the rapidly expanding trade and commerce of the Dominion, it is in the interest of Canada that a line of railway, designed to secure the most direct and economical interchange of traffic between eastern Canada and the Provinces and Territories west of the Great Lakes, to open up and develop the northern zone of the Dominion, to promote the internal and foreign trade of Canada, and to develop commerce through Canadian ports, should be constructed and operated as a common railway highway across the Dominion from ocean to ocean, and wholly within Canadian territory." The clauses, stripped of legal verbiage, follow:

- (1) This clause is a definition clause.
- (2) A through line of railway of the gauge of 4 ft. 8½ in., comprising two divisions to be called the "eastern division" and the "western division" respectively, shall be constructed between the city of Moncton, N.B., and the navigable waters of the Pacific ocean, at or near Port Simpson or some other port in British Columbia as may be agreed upon. The eastern division shall comprise the portion of the railway to be constructed from its eastern terminus through the central part of New Brunswick and through Quebec by the shortest available line to the city of Quebec, then westerly through the northern part of Quebec and Ontario and through the Province of Manitoba to Winnipeg and the western division shall comprise the portion of the railway between Winnipeg or some point on the said eastern division and the Pacific ocean, extending westerly through Manitoba, the Northwest Territories and British Columbia.
- (3) The railway shall be constructed wholly upon Canadian territory.
- (4) The western division is considered as being divided into two sections, one extending from the eastern terminus thereof westerly to the eastern limit of the Rocky Mountains (designated as the prairie section) and the other extending westerly from the eastern limit of the Rocky Mountains to the western terminus (designated as the mountain section). The eastern limit of the Rocky Mountains shall be established after the location of the line, and after actual surveys have determined the profile thereof, upon such location, and be fixed and agreed upon by the chief engineer of the company and the chief engineer of the Government, as the result of such surveys, having regard to the physical features of the country and to the cost of construction and endeavoring as fairly as possible to determine where the more easy and less expensive work

characteristic of prairie construction comes to an end, and the more difficult and expensive work characteristic of mountain construction begins, and in case the engineers shall differ, the question shall be determined by the engineers and a third arbitrator to be chosen by them, and in the event of their inability to agree on a third arbitrator, the Chief Justice of the Supreme Court of Canada may appoint the said third arbitrator, and the decision of the majority shall be final.

(5) The eastern division shall be constructed by the Government, having due regard to directness, easy gradients and favorable curves.

(6) The company agrees to construct, maintain and operate the western division, and to take a lease of, maintain and operate the eastern division, upon the terms and conditions hereinafter set forth.

(7) In order to insure, for the protection of the company as lessees of the eastern division of the railway, the economical construction thereof in such a manner that it can be operated to the best advantage, it is agreed that the specifications for the construction shall be submitted to and approved of by the company before the commencement of the work, and that the work shall be done according to the specification, and shall be subject to the joint supervision, inspection and acceptance of the chief engineer appointed by the Government and the chief engineer of the company, and in the event of differences as to the specifications, or in case the engineers shall differ as to the work, the questions in dispute shall be determined by the engineers and a third arbitrator, to be chosen in the manner provided in paragraph four.

(8) The construction of the eastern division shall be commenced as soon as the Government has made the surveys and plans and determined upon the location and shall be completed with all reasonable despatch.

(9) The western division shall be constructed by and at the cost of the company, according to plans and specifications to be approved by the Government.

(10) The work of locating and constructing the western division shall be commenced forthwith after the ratification of this agreement by Parliament and shall proceed with the utmost despatch, and shall be completed within five years from Dec. 1, 1903, and in case of the interruption or obstruction of the work of construction from unforeseen causes, the time fixed for the completion of the division shall be extended for a corresponding period.

(11) The company shall lay out, construct and equip the said western division of said railway to a standard not inferior to the main line of the G.T.R. between Montreal and Toronto, so far as may be practicable in the case of a newly completed line of railway, but this section shall not be held to oblige the company to construct a double-track railway.

(12) The company shall, within thirty days after the passing of the act confirming this agreement and of the act incorporating the company deposit with the Government \$5,000,000 in cash or approved Government securities, or partly in cash and partly in such approved securities, as security for the completion of the western division and for the first equipment of the whole line of railway, as provided for in this agreement. The Government shall pay interest at the rate of 3% per annum on any cash so deposited, and shall, from time to time, as received, pay over to the company any interest received by it on securities so deposited, unless and until the said deposit shall become forfeited to the Government or returned to the company as provided.

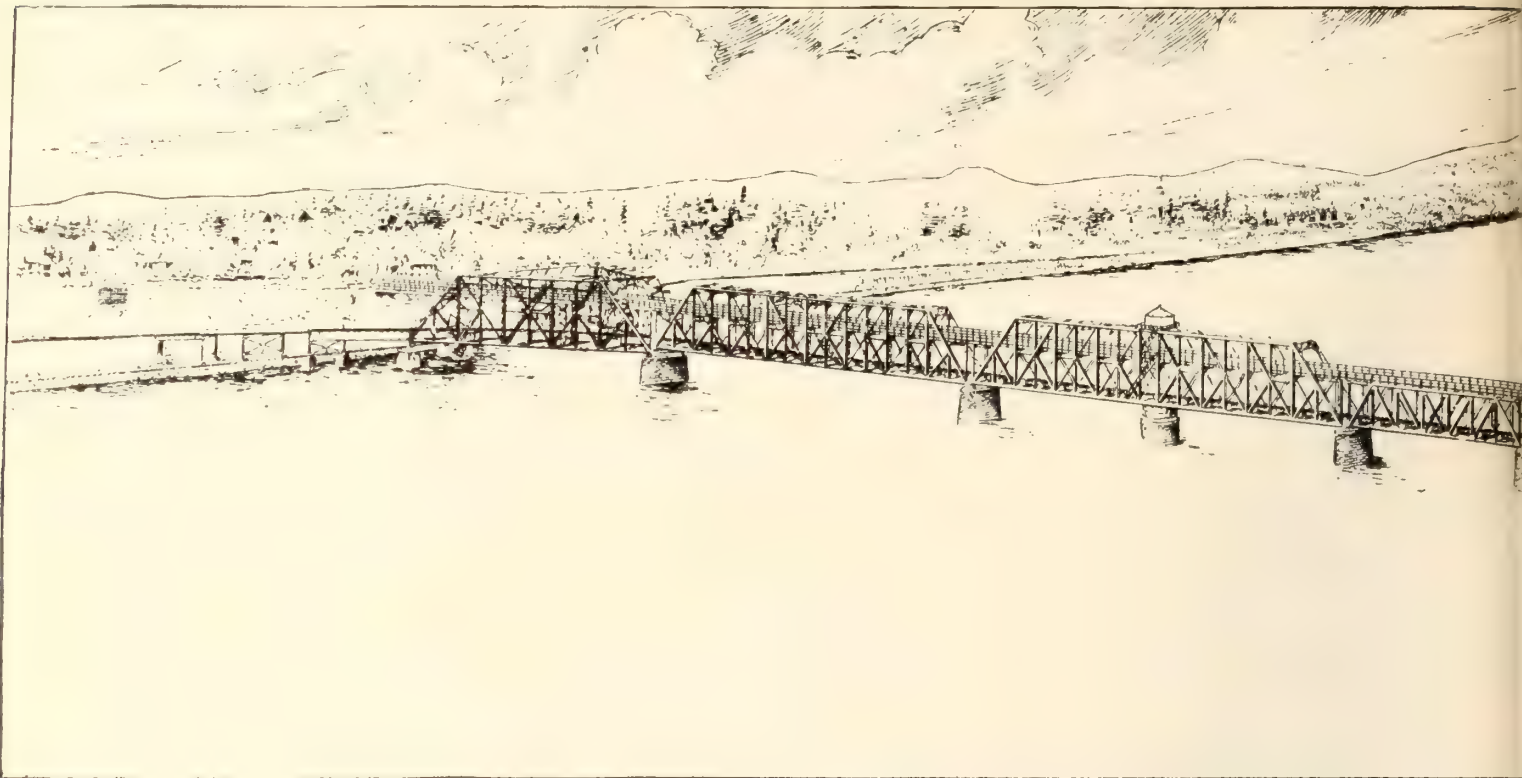
(13) This clause provides for the return of the \$5,000,000 deposit on the completion of the western division and the first equipment of the whole line, or by instalments if such be

necessary to secure the full equipment of the line, and is to be forfeited if default be made.

(14) For the purposes of this agreement, the expression, "working expenditure," as applied to the eastern division of the railway, shall mean and include all expenses of maintenance of the division and of station buildings, works and conveniences, and of rolling and other stock and movable plant used in its working, and all tolls, rents or annual sums as are paid in respect of property leased to, or held by, the company in respect of the said eastern division (apart from the rent of any other leased line), or in respect of the hire of rolling stock let to the company as part of the equipment of the said eastern division, but not including the rental of the said division payable by the company to the Government; also all rent charges or interest on the purchase money of lands belonging to the company, purchased for the use of the said eastern division, but not paid for, or not fully paid for; and also all expenses of, or incidental to, working the said eastern division and the traffic thereon, including stores and supplies and all necessary repairs and supplies to rolling stock thereof while on the western division, or on the lines of another company or of the Government; also rates, taxes, insurance and compensations for accidents or losses payable in respect of the said eastern division; also all salaries and wages of persons employed in and about the working of said division and the traffic thereon, and the due proportion of all office and management expenses, including directors' fees, agency, legal, medical and other like expenses, and of any sums of money contributed to any fund for the benefit of employees of the company; also all costs and expenses of, and incidental to, the compliance by the company with any order of the Railway Company of the Privy Council or of any board of authority which may hereafter be duly constituted by the Parliament of Canada for the regulation of railways, and made in reference to the said eastern division; and generally all such charges, if any, not above otherwise specified, as in all cases of English railway companies are usually carried to the debit of revenue as distinguished from capital account.

(15) The expression "cost of construction" in the case of the eastern division shall mean and include all the cost of materials, supplies, wages, services and transportation required for or entering into the construction of the said eastern division, and all expenditure for right of way and other lands required for the purposes of railway and for terminal facilities, accommodation works, and damages and compensation for injuries to lands, and for accidents and casualties, cost of engineering, maintenance, repairs and replacement of works and material during construction, and superintendence, bookkeeping, legal expenses and generally costs and expenses occasioned by construction of the said division, whether of the same kind as, or different in kind from, the classes of expenditure specially mentioned, including interest upon the money expended. The interest upon such outlay in each year shall be capitalized at the end of such year, and interest charged thereon at three per cent. per annum until the completion of the work, and until the lessees enter into possession under the terms of the said lease, and for the purposes of this agreement, the amount of such cost of construction, including the principal and all additions for interest, to be ascertained in the manner aforesaid, shall, on completion, be finally determined and settled by the Government upon the report of such auditors, accountants or other officers as may be appointed by the Government for that purpose.

(16) In case after the completion of said eastern division, and taking possession thereof by the company under the lease thereof, hereinafter referred to, or at any time thereafter during the continuance of said lease,



THE NEW BRIDGE ACROSS FRASER RIVER AT NEW WEST

the Government shall deem it necessary to expend any sums of money for the improvement of the said eastern division, the replacement of structures by others more modern, or otherwise upon capital account for betterments, and not being working expenditure, payable by the company, the Government may expend such sums, and the amount thereof shall be added to the capital of construction account at the end of the year, in which such expenditure takes place, and shall thereafter be considered as part of the cost of construction, upon which interest, by way of rental, is to be paid by the company, provided that no such expenditure shall be entered upon without the consent and approval of said company.

(17) Provides that customs duties are not to be counted as part of the costs of construction where there is a direct importation of materials or supplies by the Government.

(18) Defines the cost of construction of the western division to include the like classes of expenditure as on the eastern division, but the amounts are to be established to the satisfaction of the Government.

(19) Provides for the inspecting of the accounts of the company, in order to determine the cost of construction on any portion of the line, or the net earnings of the line or any portion of it by Government auditors; and for the reference to arbitration of any question as to the proper division of the earnings.

(20) When completed the eastern division shall be leased to and operated by the company for the period of fifty years at a rental payable as follows, namely: For the first seven years the company shall operate the same, subject only to the payment of "working expenditure," as defined in paragraph 14. For the next succeeding 43 years the company shall pay annually to the Government by way of rental a sum equal to 3% upon the cost of construction of the division, ascertained in the manner defined in paragraphs 15 and 16, provided that if during any one or more of the first three years of the period of 43 years the net earnings of the said division, over and above "working expenditure," shall not am-

ount to 3% of the cost of construction, the difference between the net earnings and the rental shall not be payable by the company, but shall be capitalized and form part of the cost of construction upon the whole amount of which rental is required to be paid at the rate aforesaid after the first ten years of the lease and during the remainder of that term.

(21) If upon the termination of the lease the Government shall determine not to undertake the operation of the said eastern division, the company, provided the terms offered by it are as favorable to the Government as those offered by any other railway company equally competent to perform and fulfil the obligations required by the Government to be assumed by the lessees thereof, shall have the right to an extension, or renewal, of the said lease for a further period of fifty years, upon such terms as may be agreed upon. Notices of the intention of parties shall be given, as may in such lease be provided.

(22) Provides for the equipment of both divisions of the line by the company of modern rolling stock sufficient for the handling of all classes of traffic, the first equipment to be of the value of \$20,000,000, of which \$5,000,000 worth shall be supplied for the eastern division, and shall be marked as being assigned to, and shall be maintained for the eastern division for the term of the lease, 50 years.

(23) Provides for including in the lease of the eastern division to the company all the provisions considered by the Government necessary for securing the proper maintenance and the efficient working of the line during the continuance of the lease.

(24) The lease shall also contain proper and usual provisions:—(a) Reserving to the Government in respect of its ownership, present and future, of the Intercolonial and any other line or lines of railway running powers and haulage rights over the said eastern division upon equal terms with the lessees, subject to such reasonable restrictions as may be necessary to secure safety and convenience in the operation of all the traffic over the said division, and subject to the payment by the Government to the company of such reasonable

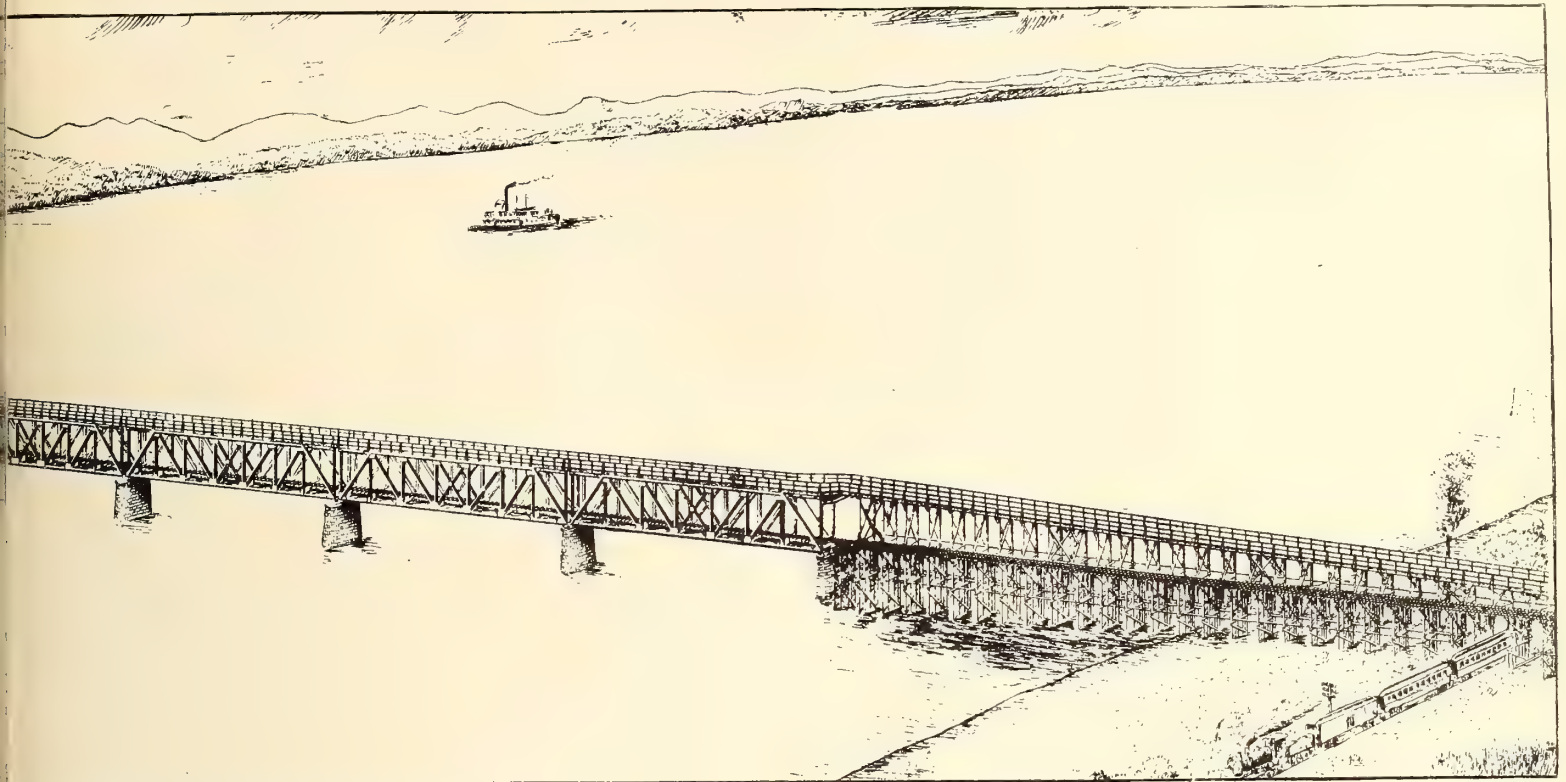
compensation as may be agreed upon between the Government and the company; (b) reserving power to the Government to grant running powers and haulage rights sufficient to enable any railway company desiring to use the said eastern division, or any part thereof, to do so upon such terms as may be agreed upon between the companies, or, in case of their failure to agree, then upon such terms as may be deemed reasonable and just by the Government, having regard to the rights and obligations of the lessees; (c) securing to the Government, in respect of its ownership as aforesaid, running powers and haulage rights over the western division, or any portion thereof, upon such terms as may be agreed upon between the Government and the company; (d) securing to any railway company desiring to make use of the same running powers and haulage rights over the said western division, or any portion thereof, upon such terms as may be agreed upon between the companies, or in case of their failure to agree, then upon such terms as may be deemed reasonable and just by the Government; (e) securing to the company running powers and haulage rights over the Intercolonial Railway, or any portion thereof, upon such terms as may be agreed upon between the Government and the company.

(25) Provides for the reference of any question arising under a, c. and e., of clause 23, in default of agreement, to arbitration, under clause 47, or to the Board of Railway Commissioners, if such be appointed, as proposed by bill No. 21 under consideration.

(26) Gives power to include in the lease any other provisions which may be found necessary in order to properly carry out the agreement.

(27) The capital stock of the company shall be \$45,000,000, of which not more than \$20,000,000 shall be preferred, and not less than \$25,000,000 common stock.

(28) The company undertakes that the G.T.R. shall acquire and take the said common stock to the amount of \$25,000,000 except shares held by directors, not exceeding 1,000, and shall hold the same during the term of the lease, and so long as any of the bonds



, B.C., UNDER CONSTRUCTION FOR THE B.C. GOVERNMENT.

guaranteed by the Government under the terms of this agreement shall remain outstanding until paid.

(29 to 31) These clauses cover the issue of bonds. The Government guarantees the principal and interest of bonds to the extent of 75% of the cost of the western division, but the amount guaranteed shall not exceed \$13,000 a mile on the prairie section of the line, nor \$30,000 a mile on the mountain section. The bonds may be issued in currency or sterling, and shall be payable 50 years from the date of issue, the interest to be at the rate of 3½%. Other provisions relating to the bond issue, the payment of interest, etc., are contained in clauses 32 and 33.

(34) Inasmuch as the bonds to be guaranteed by the Government only make provision for part of the cost of construction of the western division, the company hereby agrees that the G.T.R. Co. of Canada shall guarantee bonds of the company for the balance required for the construction of the same western division, exclusive of the said \$20,000,000 required for first equipment, which the company is required to provide under paragraph twenty-two of this agreement, and the company may issue a second series of bonds, to be guaranteed as aforesaid by the Government and G.T.R. Co. of Canada, to be a second charge upon the property described in paragraph twenty-five (b) hereof, and to be subject to and to rank upon the said property next after the said bonds so to be issued and guaranteed by the Government. "Bonds" whenever used in the agreement is held by clause 34 to include debentures and debenture stock.

(35) For the purpose hereinafter in this paragraph respectively defined, the company may and shall create mortgages to trustees as follows:—(a) A mortgage which shall be a first charge upon the railway undertaking, equipment and property, tolls, rights and franchises of the company, including all equipment and property to be thereafter acquired by the company (but not including branch lines exceeding six miles in length or the revenue therefrom, or the franchises in connection therewith, or such additional rolling

stock as may with the assent of the Government be designated and marked by the company as constituting the equipment thereof, and not including ships or any municipal or Provincial grants of land, by way of bonus or subsidy, to the said company other than for railway purposes), to secure the payment of the issue of first mortgage bonds provided for by paragraph thirty-five (a), save and except the rolling stock constituting the equipment of the eastern division, to secure the bonds to be guaranteed by the G.T.R. Co. of Canada, as aforesaid. (c) A mortgage which shall be a charge upon the rolling stock constituting the equipment of the eastern division next after the charge mentioned in paragraph thirty-five (a) to secure to the Government the rental payable in respect of the eastern division, the efficient maintenance and continuous operation of the said eastern division, and the observance of and performance by the company of the terms of this agreement.

(36) Gives power to the company to issue interim bonds secured by first mortgages from time to time as the work progresses.

(37) The company shall purchase all material and supplies required for the construction of the western division and the equipment of the whole of the railway from Canadian producers, when the same are produced in Canada, and when such material and supplies can be purchased in desired quantities and of equal quality suitable for the purpose required, and for prices and upon terms equally advantageous with those procurable elsewhere.

(38) The Railway Act of Canada, and any amendments enacted heretofore, or which shall hereafter be enacted, shall apply to the operation of the eastern division of the line, and to the rights, liabilities and obligations of the company as lessees thereof, and to the location, construction and operation of the western division thereof, except as otherwise provided by this agreement, by the act confirming the same or by any special act of the company.

(39) The rates to be levied and taken by the company upon any part of the railway shall be under the control of the Governor in Council, or of such authority, commission or

tribunal as is designated or constituted under any act of the Parliament of Canada for the regulation or control of the business of railways.

(40) The company shall, before being entitled to the guarantee provided by this agreement, furnish evidence, satisfactory to the Government, that all just claims of contractors, etc., for the construction of the railway have been duly paid.

(41) During the terms of the said lease the company shall continuously and efficiently operate both divisions of the said railway, giving due and sufficient service for the accommodation of all traffic to the satisfaction of the Government.

(42) It is hereby declared and agreed between the parties to the agreement that the aid herein provided for is granted by the Government of Canada for the express purpose of encouraging the development of Canadian trade, and the transportation of goods through Canadian channels. The company accepts the aid on these conditions, and agrees that all freight originating on the line of the railway, or its branches, not specifically routed otherwise by the shippers, shall, when destined for points in Canada be carried entirely on Canadian territory, or between Canadian inland ports, and that the through rate on export traffic from the point of origin to the point of destination shall at no time be greater via Canadian ports than via United States ports, and that all such traffic not specifically routed otherwise by the shipper shall be carried to Canadian ocean ports.

(43) The company agrees that it shall not, in any matter within its power, advise or encourage the transportation of freight by routes other than those above provided, but shall, in all respects, use its utmost endeavors to fulfil the conditions upon which public aid is granted, namely, the development of trade through Canadian channels and Canadian ocean ports.

(44) In respect of the tolls, for any traffic carried partly over any line of railway operated by the company, and partly over any of the lines of the Intercolonial Railway, a fair and equitable rateable division of all such

tolls shall be made by mutual agreement, or, in cases of dispute, such division shall be fixed by arbitrators appointed in the manner provided by paragraph 47, or by a Board of Commissioners which may hereafter be appointed, as mentioned in paragraph 19.

(45) The company shall arrange for and provide, either by purchase, charter, or otherwise, shipping connections upon both the Atlantic and Pacific Oceans, sufficient to take care of and transport all its traffic both inward and outward, at such ocean ports within Canada, upon the line of railway, or upon the line of the Intercolonial Railway, as may be agreed upon from time to time, and the company shall not divert, or, so far as the company can lawfully prevent, permit the diversion to ports outside of Canada any traffic which it can lawfully influence or control, upon the ground that there is not a sufficient amount of shipping to transport such traffic from or to such Canadian ocean ports.

(46) Provides for the granting from the public lands right of way and land for stations, yards, terminals and shops.

(47) And dispute which may arise as to the construction of this agreement or as to the performance of any of the obligations of either of the parties to this agreement, or as to the working expenditure or cost of construction shall, if not herein otherwise provided for, be determined by the word of a single arbitrator, if the parties concur in his appointment, or if not by the award of three arbitrators, one of whom shall be appointed by the Government, one by the company, and the third by the two so appointed, or in the case of their being unable to agree, by the Chief Justice of the Supreme Court of Canada, and the award of a majority of such three arbitrators shall be final.

(48) Provides for the nomination of one director by the Government so long as the lease of the eastern division continues, and so long as any portion of the bond issue guaranteed remains outstanding, such director to be paid by the Government at the rate of \$2,000 a year.

The last two clauses provide for the confirmation of the agreement by Parliament, and for its coming into force upon the passing of the act incorporating the Grand Trunk Pacific Ry. Co.

The Premier, in introducing the bill confirming the agreement, said it comprised two parts. The first provides for the creation of a commission to be composed of three members to be empowered to construct the eastern division of the line, from Moncton to Winnipeg. The provisions generally are such as are to be found in bills of this character, to empower commissioners to do certain work, and they define the powers and obligations of the commissioners. The second part of the bill provides for the ratification of the contract, the provisions of which are quoted in the first part of this article, entered into between the Government and the applicants for incorporation under the title of the Grand Trunk Pacific Ry.

Parliament was asked to assent to this policy because the Government felt certain that in so doing it was giving voice to a sentiment existing in the mind and heart of every Canadian that a transcontinental railway to extend from the shores of the Atlantic ocean to the shores of the Pacific ocean, and to be every inch on Canadian soil was a national as well as a commercial necessity. The necessity for the construction of such a line was not of the future, it was a present necessity, and it was imperative that steps be taken at once to meet the call upon the Government as representing the country. In order to give the people the full benefit which they had a right to expect from such a line, it should extend westward from the heart of the Maritime Provinces, from the town of Moncton, N.B., at the junction of the two sections of the In-

tercolonial Ry., which proceed from Halifax, N.S., and St. John, N.B. It was objected that it would be sufficient that the line should start from Quebec, because the Intercolonial Ry. already was in operation between Mon-

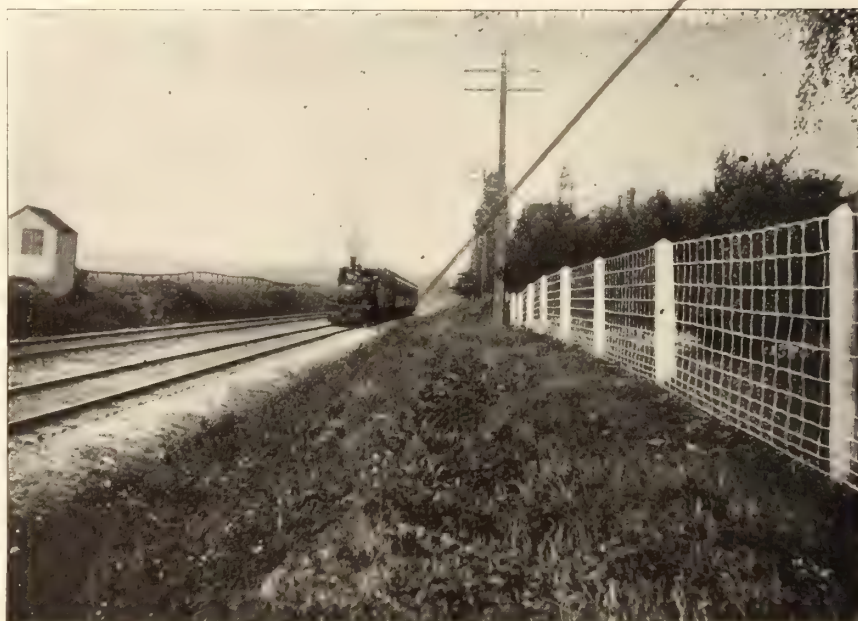
ton and Levis, opposite Quebec, but the answer of the Government was that the Intercolonial Ry. never was intended, never was conceived and never was constructed for transcontinental traffic. It was conceived as

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a military line, and constructed and located for political and not for any commercial considerations. It was not the purpose of the Government to complain of that, but the fact had to be recognized. In constructing a transcontinental railway the Government had to consider what was best for the whole country, not for the present only, but for the future. He continued: "The line which we propose will extend from the Quebec bridge down on the southern slope of the mountain, which extends through the counties of Levis, Bellechasse, Montmagny, L'Islet, Kamouraska and Temiscouata, up to the town of Edmundston. At the town of Edmundston that line will connect with the system of railways which now unites there, and which has direct railway connection with St. John. From the town of Edmundston the railway will proceed eastward to the town of Moncton, it is impossible to say at this moment by what route, perhaps that of Chipman, or in the vicinity of Chipman. At all events, from this point it is impossible exactly to locate any precise line, or to be able to say where it will be ultimately. Suffice it to say that we desire to have the best and the shortest line between Levis and Moncton. This is the line which would have been adopted in 1867, but in 1867 the settlements within the territory which will be covered partly by this line were few and far between. If there were any at all they were certainly very few in number. But the condition of things has been changed since that time. The surplus of population north of the chain of mountains has overstepped the mountains, and is to be found upon the other side. It has occupied these fertile valleys, which are now rapidly settling up. New farms are being established, new parishes are springing up, and therefore this is our justification, not only for the scheme which we propose, but it is one of the justifications for it which did not exist in 1867, and which exists in 1903."

This line it was argued would parallel the Intercolonial Ry.—in fact the ex-Minister of Railways took strong ground upon this point. If members of the House would look at the map they would perceive that the "Intercolonial when it leaves the station at Halifax proceeds almost directly in a straight line to the head waters of the Bay of Fundy, where it reaches Truro, and that from Truro the line proceeds in an almost due west course to Moncton; that from Moncton it strikes northward to the waters of the Baie des Chaleurs; that when reaching the waters of the Baie des Chaleurs it hugs the shore very closely until it comes to the confluence of the Restigouche river; at the Restigouche river the line strikes westward and follows the waters of the St. Lawrence river to Chaudiere Junction, a little west of Levis. Thus the line makes a long loop towards the north, it describes almost a complete semi-circle, and the distance covered by it is no less than 488 miles. If it were possible to have a direct line from Moncton to Levis it would be possible to abridge the distance by one-half, but the State of Maine intervenes, and the International boundary line had to be followed, but he believed that by following that line the distance between Moncton and Levis could be abridged by from 120 to 140 miles. Between the existing link, and the one now projected there would be a distance at every point of at least 30 miles, and at some points of at least 75 miles. It was impossible under these circumstances, he contended, to argue that the proposed line would parallel the line of the Intercolonial Ry. Having referred to the attempts made to secure a short all-Canadian line after the completion of the Intercolonial Ry., and to the construction of the C.P.R. line through Maine, the Premier referred to surveys made by the St. Lawrence and Maritime Province Ry., which tradition

said was acting under a tacit understanding between the G.T.R., and Sir John Macdonald for the construction of a railway between Edmundston and Moncton. That line was surveyed, and Mr. Davey, in reporting on it, said: "The total length of the line surveyed from Grand Falls to Berry's Mills was 166 miles, and, adding 36 miles from Edmundston to Grand Falls, and seven miles from Berry's Mills to Moncton, the total distance from Edmundston to Moncton would be 209 miles, which would make the distance from Montreal to Halifax, by the G.T.R., to Chaudiere Junction, the Intercolonial Ry. to Riviere du Loup, the Temiscouata Ry. to Edmundston, and the proposed line to Moncton, and thence by the Intercolonial Ry. to Halifax, 759 miles in all. If, however, the line from the Grand river, north of the Sisson range, which I explored myself, with an assistant engineer, be adopted, a saving of distance of, at least, ten miles would be obtained, and the improvement of the line at the De Chute river, as recommended by Mr. Cranston, would also effect a saving of distance, so that, in my opinion, the total length from Edmundston to Moncton may be reduced to 199 miles, or 749 miles from Montreal to Halifax. Time did not allow for our making a complete survey of the line by these alternative routes at the two points I have referred to, but I believe that when made it will result in the saving of distance already stated." The project, however, fell through.

The line which was to be constructed must be all Canadian, so that the country would be altogether independent of the U.S., and that in the case of any abrogation of the bonding privileges by the U.S., Canadian produce would be carried to the sea upon Canadian railways. The division of the line between Moncton and Winnipeg was to be built by the Government and operated by the Grand Trunk Pacific Ry. "But why did we keep this section of the road in our own hands? Why did we not give it to the company to build as well as the other section? We did it because we want to keep that section of country, which is to be the exit of the productive portion of the west, in our own hands, so as to be able to regulate the traffic over it. The prairie section will be teeming with business, as we know; it will be teeming with activity, as we know. Already there are three lines of railway—the C.P.R., the Great Northern, and the Canadian Northern—and this will be still another. Other roads are also going to be built there to meet the increasing wants of the people. The C.P.R. has its exit on the north shore of Lake Superior; these other railways have no exit. It is our intention that this road shall be kept and maintained under our supervision, so that all railways may get the benefit of it, so that the Canadian people may not be compelled to build another road across that section of the country. The Government would not undertake to construct a line from Winnipeg to the Pacific coast because they did not believe, under existing circumstances, and for many years, perhaps for many generations to come, it will be possible, with such activity as may be developed in that section of the country successfully to operate it as a Government road."

Having mentioned many matters in connection with the country through which the western division of the line would pass, and referred to the possibilities of the country, the Premier continued: "It becomes my duty to lay before the House the conditions on which we are to have this railway built, and unless I am greatly mistaken they will astonish friend and foe by their superior excellence. I may say at once that one of the first sections of the contract (produced) is to provide that the capital stock of the Grand Trunk Pacific, which in the bill before the House to-day is said to be \$75,000,000, is to be reduced to

the sum of \$45,000,000. Of this sum of \$45,000,000, \$20,000,000 shall be preferred stock and \$25,000,000 common stock, and I would call special attention to this feature of this common stock. It is provided that the whole of the \$25,000,000 shall be acquired by the G.T.R. itself. When we were approached by the gentlemen associated with the intended Grand Trunk Pacific Railway, with the view of coming to an arrangement with the view for the building of this line, strong and respectable as were the gentlemen connected with the enterprise, we told them that we would not act with them separately or individually, that we would not act with them unless they brought into this enterprise the old G.T.R., well tried, with a foothold in every city, town, village and hamlet in Ontario and Quebec, and there is the consequence of this first covenant between the incorporators and the Government." It is the intention that the Government should build the eastern section from Moncton to Winnipeg, but that it should be leased to and operated by the G.T.P. Ry. It is also provided that the western section from Winnipeg to the Pacific Ocean shall be built, owned and operated by the G.T.P. Ry. After reviewing the whole of the provisions of the contract the Premier went on to deal with the question of the relative aid of the C.P.R. and G.T.P. Ry. He said that \$25,000,000 was paid in cash to the C.P.R., and works were handed over to that company which had been built by the Canadian Government at the expense of the Canadian people, the cost of which was at least \$35,000,000. Therefore the cash aid which was given to the C.P.R. was in the neighborhood of \$60,000,000—the cash subsidy which is promised and which is to be given under this contract to the G.T.P. Co. will not exceed \$13,000,000 or thereabouts. Under the contract with the C.P.R. Company for twenty years there was an exemption of competition, in this contract there is no exemption whatever. Everybody is free to compete with the G.T.P. Ry., and the G.T.R. Co. has to face competition from whatever quarter it may come. Exemption from taxation was given to the C.P.R. in a manner that is felt even to this day in the Northwest Territories and Manitoba—no one dollar of exemption from taxation is given to the G.T.P. Ry. Co. Under these circumstances he could appeal to Parliament to grant leave for the introduction of the bill.

Respecting Railway Labor Disputes.

An act was passed at the current session of the Dominion Parliament "to aid in the settlement of railway labor disputes." During the session of 1902 an act was introduced by the Minister of Labor dealing with the matter, but was withdrawn after introduction, for the purpose of giving the railway companies and the employees an opportunity of discussing the matter and making suggestions in regard to it. As a result the bill was redrawn before introduction this session and is now law.

The act provides that whenever a difference exists between any railway employers or employees, and it appears to the Minister of Labor that the parties thereto are unable satisfactorily to adjust it, he may cause enquiry to be made into the cause of the difference. The Minister of Labor may act either on his own initiative or on the application of either of the parties to the dispute. The method of enquiry is to be by a committee of conciliation, mediation and investigation to be composed of three persons, one to be named by the railway company interested, one by the employees, and these two shall choose the third, or in the event of their failing to agree, then the third member shall be named by the Minister of Labor. In the event of this committee failing to bring about

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Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
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160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

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If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

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a settlement the Minister of Labor may refer the matter to arbitration. The arbitrators may be the committee of conciliation, or any members of it, or an entirely different committee, the members to be appointed as in the case of the committee of conciliation, except that the appointment shall be under the seal of the Minister of Labor, and that the arbitrators shall have power to summon witnesses, etc. In the case of difference on the Intercolonial Ry., it is provided that the power to name conciliators or arbitrators shall be exercised by the Lieut.-Governor-in-Council of Quebec, New Brunswick, Nova Scotia, or Prince Edward Island, as may be directed in each case by the Minister of Labor.

The important difference between the act and the proposal of the Minister of Labor in 1902, is that each separate difference may be brought before a specially constituted committee, whereas it was originally proposed to establish a permanent board for the settlement of differences.

Canadian Freight Association.

The regular summer meeting was held at Murray Bay, Que., July 9, W. P. Hinton, President, in the chair. The following were present: Bay of Quinte Ry., J. F. Chapman; Canada Atlantic Ry., C. J. Smith, W. P. Hinton; C.P.R., W. B. Bulling, M. H. Brown, S. P. Howard, W. R. Haldane; Delaware and Hudson Rd., P. Wadsworth, J. E. Hawkins; G.T.R., J. Pullen, F. J. Watson, J. J. Cunningham, C. E. Dewey, J. P. Gay; Intercolonial Ry., J. Hardwell; Kingston and Pembroke Ry., F. Conway; Michigan Central Ry., Carl Howe; New York and Ottawa Ry., G. A. Brown; Richelieu and Ontario Navigation Co., T. Henry, R. McEwan; Seely Packet Line, J. D. Seely; Toronto, Hamilton and Buffalo Ry., E. Fisher, F. F. Backus; Hon. Member, D. De Cooper, Lehigh Valley Rd.; Thos. Ridgedale, Chicago Great Western Ry., present by invitation; Secretary-Treasurer, J. Earls.

The following were elected active members: J. R. McIsaac, Traffic Manager, Dominion Iron and Steel Co., operating Sydney and Louisburg Ry., and Black Diamond Steamship Line, Sydney, N.S.; H. V. Harris, General Manager, Midland Ry., Truro, vice A. R. Evans; C. S. Papps, Quebec Southern Ry., Montreal.

The Freight Committee recommended the following for adoption: "That the cartage arrangement as in effect at cartage points on lines east of Fort William which provides, at present, for the collection on inwards and outwards cartage freight of a rate, in addition to the freight charges, when cartage is performed, of 1¼c. per 100 lbs., on freight classifying 1st to 4th, and 1c. on 5th class, minimum charge 10c. in addition to the Railway Companies' rates be increased to 1½c. per 100 lbs., on classes 1st to 5th, inclusive, minimum 15c., and, that the additional charge of 2c. per 100 lbs., now charged on freight classifying 6th to 10th, inclusive, when the cartage is undertaken or performed by the Railway Companies' Cartage Agents, be increased to 2½c. per 100 lbs." This recommendation was adopted by all the representatives present, with the exception of one member who was not prepared to vote, and J. W. Lond, W. R. MacInnes and C. J. Smith were appointed a special committee to decide as to the date when the change should become effective.

The members of the association and the friends, who accompanied them, travelled to Murray Bay, via the Richelieu and Navigation Co.'s steamers, and the meeting was held at the Manoir Richelieu, the company's hotel there. Facilities for travel were extended to the members by the Intercolonial Ry. and the Quebec and Lake St. John Ry.

Dominion Marine Association.

Since the article under this heading on pg. 286 went to press, we are advised that the following additional members have been enrolled and tonnage declared:

Hamilton and Fort William Navigation Co. (Ltd.), Hamilton, Ont. Strs.: Strathcona, 1,465 tons; Donnacona, 1,222 tons.

Hamilton and Montreal Navigation Co. (Ltd.), Hamilton, Ont. Str.: Lake Michigan, 360 tons.

Montreal Transportation Co., Montreal. Strs.: Bothnia, 478 tons; Fairmount, 1,183 tons; Rosemount, 989 tons; Westmount, 1,171 tons.

Sailing vessels and barges: Augustus, 802 tons; Dunmore, 590 tons; Hamilton, 969 tons; Melrose, 740 tons; Minnedosa, 1,041 tons; Quebec, 988 tons; Selkirk, 719 tons; Winnipeg, 681 tons; Acadia, 375 tons; Alberta, 314 tons; Bella, 434 tons; Brighton, 607 tons; Cobourg, 607 tons; Colborne, 301 tons; Cornwall, 586 tons; Dorchester, 375 tons; Eagle, 316 tons; Gaskin, 487 tons; Hector, 539 tons; Iowa, 365 tons; Jennie, 438 tons; Kildonan, 499 tons; Kingston, 578 tons; Montreal, 338 tons; Nebraska, 387 tons; Regina, 411 tons; Star, 321 tons; Toronto, 335 tons; Valenica, 543 tons. Total: strs., 3821 tons; sailing vessels and barges, 15,686 tons.

New Ontario Steamship Co. (Ltd.), Hamilton, Ont. Str.: Wacondah, 996 tons.

A. E. Pontbriand, Sorel, Que. Strs.: Victoria, 183 tons; Robert, 418 tons.

The Department of Customs has arranged to bring into effect the contemplated arrangements by which all charges for customs officers for extra services will be borne by the public revenue and the transportation companies thereby relieved. The Department is waiting the passing of an order-in-council before issuing instructions to its officers, but hoped to be able to send out the necessary orders before the end of July, the new arrangement to date from July 1. The Department, however, has expressed its intention not to undertake to pay for extra service provided on Sundays. Some correspondence has taken place between the Association and the Minister of Customs on this point, but the Minister has expressed himself averse to allowing Sunday to follow in the same category as the other days of the week. The bill introduced by the Minister of Marine to amend the Steamboat Inspection Act, and providing for the carrying out of the petitions of the Ottawa convention by removing the inspection fees and tonnage and placing them under the control of the Governor-in-Council has been printed. The bill also provides for reciprocal inspection arrangements with other countries, so that when Canadian vessels obtain free inspection in any other country, vessels from that country will have similar privileges in Canada.

Sunday Travelling in Ontario.

A number of cases under the Lord's Day Act of Ontario have been tried in the courts with varying results, but by the decision given by the Judicial Committee of the Privy Council, in London, Eng., all doubt on the law has been set at rest. The case on which the decision was given in London, was that of the Attorney-General of Ontario against the Hamilton Street Ry. Co. and others, which, with certain questions relative to the act, were referred to the Privy Council by the Lieut.-Governor of the Province. The case was argued before a full court by counsel representing the Province, the Dominion, the Ontario Lord's Day Alliance, the G.T.R., the Metropolitan Ry. and others interested.

The Lord Chancellor in delivering judgment said the court was of opinion that the act, treating it as a whole, was beyond the competency of the Ontario Legislature, and, therefore, it was invalid. The reservation in

the British North America Act of the criminal law for the Dominion was given in very plain, ordinary and intelligible language. With regard to the other questions which it had been suggested should be reserved for further argument, the court considered it would be inexpedient and undesirable and contrary to precedent to attempt to give any judicial opinion upon them. The main and substantial question was that on which an opinion had first been expressed that this Ontario act was beyond the jurisdiction of the Ontario Legislature. No order would be made as to costs.

August Birthdays.

Many happy returns of the day to

H. H. Adams, Assistant Superintendent Canadian division, Michigan Central Rd., at St. Thomas, Ont., born at Detroit, Mich., Aug. 13, 1876.

H. W. D. Armstrong, Chief Engineer, Lindsay, Bobcaygeon and Pontypool Ry., at Lindsay, Ont., born at Ottawa, Aug. 1, 1852.

R. Atkinson, ex-Superintendent of Rolling Stock, C.P.R., born at Crewe, Eng., Aug., 1851.

G. J. Chadd, Purchasing Agent, Central Ontario Ry., at Trenton, Ont., born in London, Eng., Aug. 21, 1837.

H. G. Elliott, Assistant General Passenger and Ticket Agent, G.T.R., at Montreal, born at Chambly, Que., Aug. 22, 1860.

Hon. W. Gibson, railway contractor, Beamsville, Ont., born at Peterhead, Scotland, Aug. 7, 1849.

G. H. Ham, Advertising Agent, C.P.R., at Montreal, born at Trenton, Ont., Aug. 23, 1847.

W. P. Hinton, General Freight and Passenger Agent, Canada Atlantic Ry. and Canada Atlantic Transit Co., at Ottawa, Ont., born at Hintonburg, Ont., Aug. 30, 1871.

R. Kerr, Passenger Traffic Manager, C.P.R., at Montreal, born at Toronto, Aug., 1845.

G. M. Lang, Resident Engineer, C.P.R., at Medicine Hat, Assa., born at Ottawa, Ont., Aug. 16, 1859.

J. D. McDonald, District Passenger Agent, G.T.R., at Toronto, born there Aug. 27, 1855.

T. McHattie, Master Mechanic G.T.R., at Montreal, born at Duftown, Banffshire, Scotland, Aug. 8, 1854.

W. E. Mullens, Superintendent of Transportation Central Vermont Ry., at St. Albans, Vt., born at Stratford, Ont., Aug. 13, 1870.

W. S. Nevins, Travelling Freight Agent, C.P.R. and Minneapolis, St. Paul & Sault Ste. Marie Ry., at Buffalo, N.Y., born at Towanda, Pa., Aug. 13, 1850.

C. R. Scoles, General Manager, Atlantic and Lake Superior Ry., at New Carlisle, Que., born at Grantham, Lincoln, Eng., Aug. 27, 1856.

M. C. Sturtevant, Car Service Agent, G.T.R., at Montreal, born at St. Albans, Vt., Aug. 28, 1866.

W. N. Warburton, General Freight Agent, Niagara, St. Catharines and Toronto Ry., at St. Catharines, Ont., born at St. Thomas, Ont., Aug. 24, 1851.

The first sod for the new Y.M.C.A. building at Stratford, Ont., towards the erection of which the G.T.R. has given a free site and \$4,000, was turned July 11.

The supplementary estimates passed by the House of Commons contain an item of \$3,000 for the cost of the cattle guard's commission.

Mackenzie, Mann & Co. are reported to have secured control of the Kayak oil fields in Alaska.

Death of Mr. Jas. Cooper.

James Cooper, manufacturer of railway and other supplies, Montreal, died there, July 11, after a brief illness, aged 68. For some years Mr. Cooper was a traveller for Rice Lewis & Co., Toronto, but in 1872 started in business in conjunction with F. Fairman, as Cooper, Fairman & Co., in the heavy hardware trade. Later on manufacturing was added, and separate companies were subsequently formed to take over district branches

of the business. These included the Dominion Wire Manufacturing Co., the Dominion Wire Rope Co., the James Cooper Manufacturing Co., of each of which Mr. Cooper was President. The firm, which was dissolved in 1889, held a controlling interest in the Dominion Bridge Works, and since 1889 Mr. Cooper was a director of that company. In addition to his many company interests, he did a very large general contractors' and railway supply business, representing such English firms as Chas. Cammell & Co., Sheffield; John Hendry,

Andrew & Co., Sheffield, as well as large American manufacturing concerns. The funeral took place July 14, and was largely attended by manufacturers of railway supplies, and others. In his will, Mr. Cooper, after providing for his widow, leaves \$60,000 to McGill University to endow a chair for the investigation of diseases of the internal organs; \$25,000 for a child's memorial hospital, now being organized by Dr. A. Mackenzie Forbes, and directs that the balance be divided among Montreal charitable institutions.

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MAINLY ABOUT PEOPLE.

A. F. Read, Foreign Freight Agent, G.T.R., is taking a holiday and business trip to Europe.

W. F. Egg, C.P.R. ticket agent at Montreal, had a slight stroke of paralysis, July 23, but is recovering.

R. Doyle, trainmaster Wabash Rd., at St. Thomas, Ont., was married at West Lorne, Ont., to Miss N. Hirst, July 21.

R. Colecleugh, on the staff of the general manager I.C.R., Moncton, N.B., was married there recently to Miss B. N. Geldart.

A. C. Mackenzie, Canadian Northern Ry. contractor, has purchased a 560-acre farm near Portage la Prairie, Man., for \$20,000.

H. B. Darnell, eastern travelling agent, C.P.R. in Japan, was married in Yokohama, to Miss C. E. Mackenzie, of London, Ont., July 1.

M. J. Haney, contractor for the substructure of the Hillsboro' river bridge, has taken up his residence for the summer at Charlotte-town, P.E.I.

C. C. Young, formerly general agent Lake Erie and Detroit River Ry. at London, Ont., has been appointed C.P.R. day operator at Yorkton, Assa.

A. Angstrom, manager of the Canadian Ship Building Co., on Lake Erie, recently had a narrow escape from drowning while out boating at Shanty Bay.

P. H. Peabody, formerly a clerk in the employ of the C.P.R. at Farnham, Que., has fallen heir to \$75,000 worth of real estate and \$150,000 of bonds and cash.

Miss A. Long, daughter of Thos. Long, President Northern Navigation Co., it is announced, is engaged to be married to H. Wheeler, of St. Paul, Minn.

Arthur White, formerly Division Freight Agent, G.T.R., at Toronto, has been appointed special agent for the Canada Life Assurance Co. Headquarters at Toronto.

A. Butze, General Purchasing Agent, G.T.R., left Montreal, July 18, on the Str. Canada for England, intending to return about the end of August, via Montreal.

Sir C. Rivers Wilson, President G.T.R., was a member of the party invited by King Edward to meet the Khedive of Egypt at dinner at Buckingham Palace, London, Eng., recently.

C. Pilon, Passenger Agent for Ontario of the White Star and other lines of the International Mercantile Marine Co., and Mrs. Pilon, are spending the summer at Niagara-on-the-Lake, Ont.

M. Neilson was presented with a cabinet of silverware by the directors and employes of the St. John Ry. Co., July 11, on his resigning the General Managership to take a position in Mexico.

H. Greenwood, who is resident engineer of the Transvaal and Orange River colony railways at Johannesburg, was formerly engineer in charge of construction of the Cornwall canal at Cornwall, Ont.

J. Murray, G.T.R. train dispatcher, Toronto, has been in the company's service for over forty years, and was acting as dispatcher when Edison was a news vendor on the Stratford-Detroit run in 1869.

Colonel Sir P. Girouard, who has charge of the Government railways in the Transvaal and Orange River colonies, is about to be married to Miss G. Solomon, only child of the Chief Justice of the Transvaal.

Mrs. McNicoll, wife of D. McNicoll, second Vice-President and General Manager C.P.R., is in England on a visit, and will be accompanied home by Miss McNicoll, who has been pursuing her art studies in London.

C. C. Young, of London, Ont., was presented with an address and a travelling bag, by a number of railway men, on his leaving the service of the Lake Erie and Detroit River Ry., to join that of the C.P.R.

Press reports announce that Professor S. J. McLean, who conducted the investigation into railway rates for the Dominion Government in 1901-02, will be appointed secretary of the projected Railway Commission.

Sir A. L. Sarle, formerly General Manager of the London, Brighton and South Coast Ry., who died recently in London, Eng., was vice-chairman of the board of directors of the White Pass and Yukon Ry. Co. (Ltd.)

John Kyle, locomotive foreman, Canadian Northern Ry. at Winnipeg, was presented with an address and a sum of money from the employes at the shops on the occasion of his marriage, July 16, to Miss L. Johnson.

The formal presentation of the Kirkpatrick memorial fountain to the county of Frontenac was made at Kingston, July 27. The fountain has been erected as a memorial to the late Sir G. A. Kirkpatrick, President, Dominion Express Co.

C. Adcock for a period of thirty-four years connected with the Great Western Ry. and the G.T.R. in various capacities, latterly in the passenger department in Montreal, was recently presented with a casket by the members of the staff on the occasion of his retirement.

Sir James Hector, who has recently retired from the position of director of the Geological Survey of New Zealand, was medical officer and geologist of the Palliser expedition to the Rocky Mountains, and was the discoverer of the pass by which C.P.R. crosses the mountains. The station of Hector, B.C., was named after him.

W. G. Reid, railroad contractor, Montreal, died there suddenly June 17. Mr. Reid was associated with his brother, R. G. Reid in the construction of the C.P.R. along the north shore of Lake Superior, and on his own account carried out several large contracts, the last being the construction of the Midland Ry. of Nova Scotia.

H. Johnson, formerly clerk in the C.P.R. audit office, and P. Carlin, formerly C.P.R. conductor, who were sent to gaol for conspiracy in connection with the giving out of information relating to the secret audit of trains, have been released on ticket of leave. The petition for their release was signed by Sir T. G. Shaughnessy, President C.P.R.

Waddell and Hedrick, engineer, of Kansas City, Mo., who are in charge of the construction of the B.C. Government bridge over the Fraser river, are credited by the local and the engineering papers with a highly creditable piece of emergency construction at Kansas City, in re-building the flood-wrecked structure carrying the city's water supply pipes across the Kansas river.

F. H. Clergue recently visited London, Eng., in connection with the floating of bonds for the projected railway from Scotia Jct. to Sudbury, Ont., to be constructed by the Canada Central Ry. An Ottawa despatch states that Mr. Clergue proposes devoting the whole of his time to the promoting of the interests of the new company, and that he will continue to act as a director of the Consolidated Lake Superior Co.

J. C. Bailey, C.E., died at Toronto, after a long illness, July 27, aged 78. He was for many years employed in railroad work; among the lines on which he was engaged in connection with surveys or construction were: Credit Valley Ry., Toronto and Nipissing Ry., Lake Simcoe Jct. Ry., Toronto and Ottawa Ry., Midland Ry. and its various extensions, and the Northern and Pacific Jct. Ry.

Arthur White, formerly Division Freight Agent G.T.R. at Toronto, has recently been the recipient, through Noel Marshall, representing shippers on the G.T.R., of a handsome testimonial in recognition of his many acts of courtesy. A dual committee, without any attempt at publicity, collected a sum, which has been deposited with a trust company, which will pay \$300 a year to Mr. White, or to Mrs. White, as long as the fund lasts, which will be for some years to come.

F. W. Flanagan, who has been appointed General Passenger Agent, C.P.R., in London, Eng., was born at Kingstown, County Dublin, Ireland, Nov. 23, 1862, and entered railway service 1882, his record being: April, 1882, to 1886, shorthand correspondence clerk in office of Allan Begg, General European Emigration Agent, C.P.R., London, Eng.; 1886 to 1892, chief clerk, passenger department under Archer Baker, European Traffic Manager, at London; Sept., 1892, to June, 1903, City Passenger Agent, C.P.R., London, Eng.

W. McWood, whose portrait appears on the first page of this issue, was born at Montreal in 1830, and entered railway service in 1855; his record being: 1855 to 1860 car department G.T.R., at Montreal; 1860 to 1873 foreman car department, same road at Montreal; in 1873 he was appointed assistant Mechanical Superintendent, with charge of the car department of the entire system, and latterly his title has been Superintendent of Car Department. He has been a member of the Master Car Builders' association since 1875, being Vice-President from 1882 to 1887, and President from 1887 to 1890.

T. A. MacKinnon, First Vice-President and General Manager, Boston and Maine Rd., of Boston, Mass., died at Marble Head Neck, Mass., July 12. Mr. MacKinnon was Superintendent of the Brockville and Ottawa and Central Canada Ry. at Brockville, Ont., from 1873 to 1880; from 1880 to 1885 he managed the South Eastern Ry. of Canada; from 1885 to 1890 was General Superintendent Ontario and Atlantic divisions C.P.R. at Montreal, becoming subsequently General Manager of the Concord and Montreal Ry., and in 1894 General Manager Boston and Maine Rd. G.S. MacKinnon, C.P.R. Master Mechanic, Winnipeg, is a brother.

J. W. Dawsey, who has been appointed Superintendent of Winnipeg terminals and lines west of Winnipeg, Canadian Northern Ry., was born at Aylmer, Que., June 10, 1861, and entered transportation service Sept., 1883, since which time his record has been: Sept., 1883, to Dec., 1886, successively, operator, dispatcher and chief clerk in Superintendent's office, Flint and Pere Marquette Rd., at Saginaw, Mich.; Dec., 1886, to Aug., 1892, successively agent, chief clerk at Ottawa, and general agent at Montreal and Toronto, Canada Atlantic Ry.; Aug., 1892, to June, 1893, agent National Despatch Fast Freight Line, Toronto; June, 1893, to Dec., 1897, General Manager Quebec Southern Ry., Montreal; Dec., 1897, to July, 1901, successively freight agent, Station and Weighing Inspector, and Inspector for Manager, eastern lines, C.P.R., at Montreal; July, 1901, to June, 1903, Superintendent Algoma Central and Hudson's Bay Ry., Sault Ste Marie, Ont.

P. M. Arthur, chief engineer of the Brotherhood of Locomotive Engineers, dropped dead during a speech which he was making at the banquet at the annual convention in Winnipeg, July 16. He had just said, "It may be my parting words to many of you," when he fell back and died in a few minutes. The Railway and Engineering Review says: "Mr. Arthur had for many years maintained a dignified and conservative attitude which commanded universal respect. During the earlier years of his official career he met with continual opposition from the more radical and hot-headed elements in the organization. He was always opposed to strikes except as a last resort. While he was not always able to control the situation, and hence at times was forced into positions not always tenable, he gradually brought all elements over to his side and made the organization respected by railway officials as well as the public. Few so-called labor leaders have ever won respect in so high a degree. The success of the brotherhood under its conservative policy has been so marked that it is hardly possible that it can in the future be led to depart from it by any leader who might be so disposed."

Geo. Spencer, who has been appointed Superintendent district 1 Ontario division, C.P.R., at Toronto, was born in London, Eng., Feb. 21, 1865, and entered railway service in 1880, since which his record has been: July, 1880, to March, 1881, assistant

agent, Toronto, Grey and Bruce Ry., at Dundalk, Ont.; Mar., 1881, to July, 1881, agent, Waldemar, Ont., same road; July, 1881, to Oct., 1882, operator Toronto freight office, same road; Oct., 1882, to Nov., 1883, train dispatcher, Toronto, same road; Nov.,

1883, to June, 1884, same position with Ontario and Quebec Ry., which leased the T.G. and B.Ry.; June, 1884, to Aug., 1887, same position with C.P.R., that company having absorbed the O. and G.Ry.; Aug., 1887, to Aug., 1889, train dispatcher, C.P.R., at

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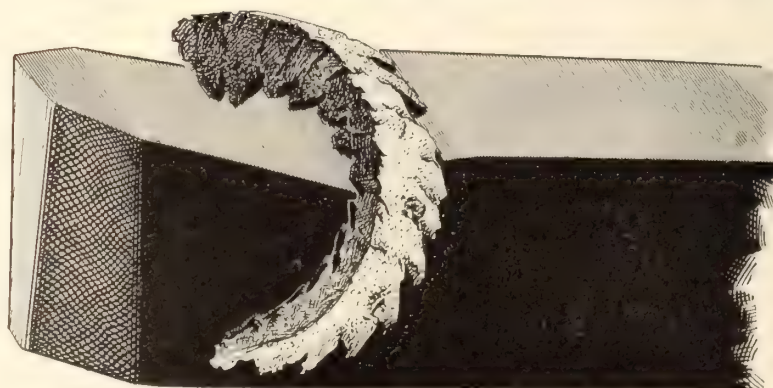
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Smith's Falls, Ont.; Aug., 1889, to Oct., 1891, train dispatcher, C.P.R., Toronto; Oct., 1891, to May, 1901, Chief Train Dispatcher, C.P.R., Smith's Falls, Ont.; Nov., 1892, the duties of Train Master were added to those of Chief Train Dispatcher, but in Mar., 1898, the office of Train Master was abolished; May, 1901, to May, 1903, Chief Train Dispatcher, Ontario division, C.P.R., at Toronto.

J. J. Scully, who has been appointed acting Superintendent district 5, Central division C.P.R., at Regina, Assa., was born at Montreal, Feb. 3, 1872, and entered railway service 1887, since which his record has been, entire service having been with the C.P.R.: Jan., 1887, to June, 1888, in car service department at Montreal; June, 1888, to Sept., 1888, clerk in Superintendent's office, at Farnham, Que.; Sept., 1888, to Aug., 1890, chief clerk and car distributor, at Farnham, Que.; Aug., 1890, to April, 1891, Superintendent's office at Montreal; April, 1891, to Mar., 1893, Superintendent's office, Farnham, Que.; Mar., 1893, to Sept., 1894, Mechanical department at Farnham; Sept., 1894, to Mar., 1898, Mechanical department at Toronto, during this time the mechanical departments of the lines east and west of Montreal were consolidated; Mar., 1898, to Aug., 1901, assistant master mechanic Ontario and Quebec Division, at Toronto Jct., Ont.; Aug., 1901, to Aug., 1902, assistant master mechanic, Western division, for roadwork, at Winnipeg; Aug., 1902, to May, 1903, assistant to General Superintendent Central Division, at Winnipeg; May, 1903, to June, 1903, in office of Assistant General Manager, lines east of Port Arthur, Ont., at Winnipeg.

TRANSPORTATION APPOINTMENTS.

Boston and Maine Rd.—F. Barr, heretofore Assistant General Manager, has been appointed Third Vice-President and General Manager, succeeding T. A. MacKinnon, deceased.

Canadian Pacific Ry.—R. Chapple, heretofore Superintendent of old district no. 2 at Chapleau, Ont., has been appointed chief clerk to C. W. Spencer, General Superintendent of Transportation, eastern lines.

T. Burgess is reported to have been appointed Roadmaster for line between Brockville and Prescott, via Ottawa. Office at Ottawa.

J. Nicholl, formerly G.T.R. agent at Brantford, Ont., has been appointed C.P.R. agent at Regina, Alta.

S. J. Montgomery, heretofore C.P.R. agent at Bedford, Que., has been appointed assistant city passenger agent at Ottawa, Ont.

Chicago, Rock Island and Pacific Ry.—A. C. Turpin is appointed General Agent, Passenger and Freight departments, with office at 77 Yonge Street, Toronto, Ont., in charge of the Provinces of Ontario and Quebec, Canada. Effective July 16.

Grand Trunk Ry.—A. B. Atwater, assistant to C. M. Hays, second Vice-President

and General Manager, with executive jurisdiction over the western subsidiary companies, will, it is reported, be chief operating official of the Detroit and Toledo Shore Ry., recently acquired by the G.T.R. and the Toledo, St. Louis and Western Rd.

W. Robinson, heretofore General Traveling Agent Intercolonial Ry., at Toronto, has been appointed G.T.R. Travelling Passenger Agent, with headquarters at Pittsburg, Pa.

J. C. McFadzean has been appointed acting agent at Detroit, Mich.

A. E. Dornan, heretofore agent at Thousand Islands Jct., is acting as Travelling Passenger agent. Office at Alexandria Bay, N.Y.

Great Northern Ry. of Canada.—In addition to the officials mentioned in our last issue, P. A. LaRiviere is Trainmaster and Chief Dispatcher, with office at Grand Mere, Que. B. Bourgeois is Superintendent of the Montford branch, with office at Montford, Que.

Intercolonial Ry.—B. C. Gesner having resigned from the railway service, W. C. Hunter has been re-appointed General Air Brake Inspector.

Lehigh Valley Rd.—J. A. Middleton, Second Vice-President, with office at 26 Cortlandt Street, New York, will hereafter be in general charge of the Co.'s passenger and freight traffic.

H. H. Kingston, General Traffic Manager, having resigned to engage in other business, that office is abolished. The G.P.A. and the G.F.A. will report to the Second Vice-President.

J. W. Platten is appointed Assistant to the President, with office at 228 South Third Street, Philadelphia, and will have charge of the financial and accounting affairs of the Company and of its Purchasing Department. The General Auditor, the Treasurer and the Purchasing Agent will report to the Assistant to the President.

Michigan Central Rd.—R. H. L'Hommieu, heretofore General Superintendent of the M.C.R., has been appointed General Manager. Office, Detroit, Mich.

S. P. Hutchinson, heretofore Assistant General Superintendent, has been appointed General Superintendent, succeeding R. H. L'Hommieu, promoted. Office, Detroit, Mich. The office of Assistant General Superintendent has been abolished.

Rutland Rd.—During the absence, through ill-health, of Dr. W. Seward Webb, President, the duties of the office have been delegated to an executive committee, consisting of S. R. Callaway, E. V. W. Rossiter, and H. H. Powers.

G. T. Jarvis, General Manager, has been elected Vice-President.

St. John, N.B., Ry.—W. Z. Earle, C.E., formerly Chief Engineer of the Algoma Central and Hudson Bay Ry., has been appointed Manager of the St. J. Ry., vice M. Neilson, appointed Resident Manager of the Mexican Light, Heat and Power Co.

Toronto Ry.—F. Nicholls has been elected Vice-President, succeeding James Ross, resigned.

Railway Equipment Notes.

The B.C. Electric Ry. Co. has completed two new cars at its Vancouver Works.

The Elgin and Havelock Ry. has purchased an additional locomotive from the I.C.R.

The St. John, N.B., St. Ry. has received four more double truck cars fitted with air brakes from the Montreal St. Ry. car works, completing the order for six placed there.

The C.P.R. has not ordered 300 flat cars from J. W. Ellsworth & Co., as stated in press reports, but that firm is having 300 coal cars built at Chicago, to be used in the C.P.R. business.

The C.P.R. private car Cornwall, part of the Royal train in which the Prince and Princess of Wales travelled across Canada, has been sent to the west from Montreal in the ordinary course of business.

The Temiskaming and Northern Ontario Ry. commissioners has ordered 100 flat cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S.; and 50 flat cars, 60,000 lbs. capacity, also in Canada, for delivery in May, 1904.

G.T.R. Conductor Parker, of London, Ont., exhibited at the recent convention of the Master Car Builders of America, at Saratoga, N.Y., a device, for which he has secured a patent, to prevent steam pipes in passenger cars from freezing.

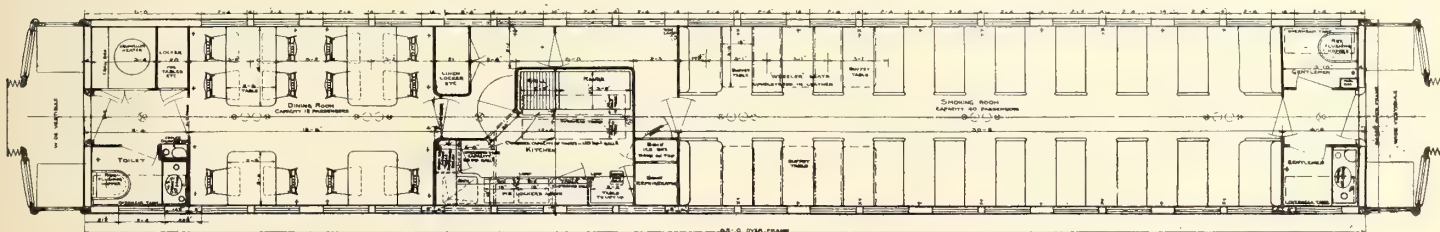
The Winnipeg Electric Street Ry. Co. has received 6 40-ft. double truck cars from the shops of the Toronto Ry., and has completed, at its own shops in Winnipeg, a 45-ft. double truck car. The Co. is now in a position to turn out all its own car equipment.

The first of 4 10-wheel express locomotives has been completed at the I.C.R. shops, Moncton, N.B. The engine has 20 in. cylinders, 26 in. stroke, a boiler pressure of 200 lbs. to the square inch; 72 in. driving wheels, and the tender has a capacity of 5,000 gallons of water.

The C.P.R. placed orders for the following equipment between June 13 and July 15: 10 freight locomotives in Toronto, 4 baggage cars to be built at the Co.'s Hochelaga shops, 500 box cars, 60,000 lbs. capacity, to be built at the Co.'s Perth shops; 26 vans, to be built at the Co.'s Farnham shops.

John J. Gartshore, Toronto, reports having recently secured a contract for rails and fastenings to equip a railway in Mexico, about 5 miles long, which he is supplying direct from the mills to Tampico. He has recently sold a standard gauge locomotive and three narrow gauge saddle tank locomotives besides a quantity of cars for logging lines.

The G.T.R. added to its equipment from Mar. 28 to June 20: 15 Richmond compound mogul locomotives, 22½ in. and 35 in. by 26 in., and 3 Richmond compound locomotives from its Montreal shops; 144 box cars, 60,000 lbs. capacity, 5 1st class passenger cars, 8 34-ft. cabooses, 5 60-ft. baggage cars, 35 cheese cars, 60,000 lbs. capacity, from its Montreal shops; 15 34-ft. cabooses from its London shops, and 15 34-ft. cabooses from its Port Huron, Mich., shops.



DINING AND SMOKING CAR FOR CANADIAN PACIFIC RY. AND BOSTON AND MAINE RD.

The Canadian Northern Ry. recently received from the American Locomotive Co.'s Brooks works two 10-wheel freight locomotives, which were ordered by the Great Northern Ry. of Canada, but transferred to the

C.N.R. Following are the general dimensions: cylinders, diameter, 20 in.; stroke, 26 ins.; driving wheels, diameter, 63 ins.; boiler, diameter, 66 ins.; firebox, length, 114 ins., width, 42 in.; flues, no. 300, diameter, 2 ins.;

length, 13 ft. 2 1/4 in.; wheel base, rigid, 14 1/2 ft., driving, 14 1/2 ft., engine, 24 ft. 10 ins.; total, 52 ft. 2 ins.; weight in working order, drivers, about 122,700 lbs.; total weight of engine, about 156,700 lbs.

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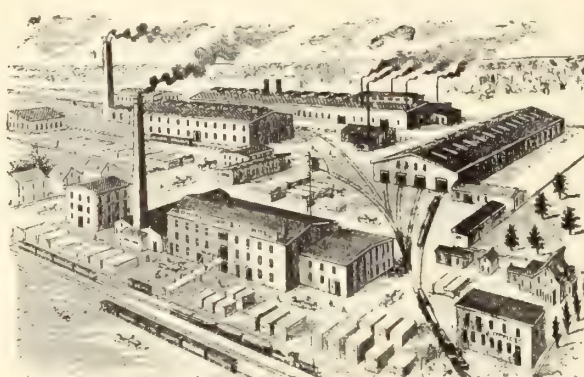
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The C.P.R. received the following new equipment between June 13 and July 15: 10 passenger and 6 freight locomotives from the American Locomotive Co.'s Schenectady works; 8 passenger locomotives from Glasgow, Scotland; 2 switching locomotives from the Co.'s Montreal shops; 3 sleeping cars, 5 1st class passenger cars, and 10 fruit express cars, from the Co.'s Hochelaga shops; 104 refrigerator cars, freight service, from the Co.'s Perth shops; 17 refrigerator cars, passenger service, from Rhodes, Curry & Co., Amherst, N.S.; 1 wrecking crane from the U.S.; 86 flat cars, 60,000 lbs. capacity, built in Canada; 144 flat cars, 60,000 lbs. capacity, from the Algoma Central and Hudson's Bay Ry. Co., Sault Ste. Marie, Ont.

The C.P.R. and the Boston and Maine Rd. have had built in Chicago, for joint service between Montreal and Boston, two dining and smoking cars, two first class cars, two first class and smoking cars, four second class cars, and four baggage and express cars, which will replace cars at present in service. The cafe or dining and smoking cars are 65 ft. long over frame and 72 ft. 11 in. over all. The cars have been built to C.P.R. standard dimensions and outside finish of varnished natural mahogany. They will be equipped with six-wheeled trucks, steel axles, Krupp steel tired wheels, Pullman wide vestibules, steel platforms, Westinghouse air signal and brake with American brake slack adjusters, also steel needle beams and queen posts for truss rods. Each car is divided into three compartments, dining, buffet, and smoking, the dining room being equipped with two double and two single tables and leather upholstered chairs with seating capacity for 12 passengers. The buffet or kitchen will be fitted with a range or grilling stove, refrigerator, ice boxes, sink, cupboards and overhead water tanks. The smoking room has seating capacity for 40 passengers, in leather upholstered seats; this compartment is also fitted with buffet tables for convenience of passengers when dining room is full. The women's toilet room is located next the dining room and opposite the heater room; the men's toilet being arranged at the other end of the car and adjoining the smoking room; both rooms are equipped with nickelene washstands and coolers and flushing hoppers. Storm doors are hung at each bulkhead and in kitchen passage to prevent any odors from kitchen and smoking room pervading the entire car; the end doors also have a patent door check. The general finish throughout the cars is of mahogany, with marquetry panels and designs; the ceiling being of Empire style in dining and smoking rooms. The cars will be illuminated with Pintsch gas, with especially selected design of lamps; they are also wired for electric light. An illustration of the floor plan is given on pg. 283.

The M.C.B. Report on Couplers.

The Committee on Couplers of the Master Car Builders' Association recommended at the June convention a number of changes in the coupler specifications. Chief among these were the exclusion of the malleable iron coupler and a change in the contour lines to provide for a larger pin and greater strength in the lugs and in the knuckle hub. The report says that "The present contour was designed for very much lighter service than it is now compelled to stand and there is a limit to the additional strength that can be obtained with the present contour by improving the material in the coupler." If such changes are necessary it is time that the railroads gave some serious thought to the prevention of the abuse to their rolling stock which takes place in the yards and which is the cause of the ever increasing number of failures of couplers and draft gears resulting in serious wrecks and break-in-tuos. Couplers

are not broken or draft attachments pulled out as a result of stresses induced by the engine on the road. The damage is done in the yards, although it may not appear until the train is on the road and breaks in two on a stiff grade. Cars cannot be kicked into sidings and brought up sharp against a bumping post or a string of other cars at a speed of 6 or 8 miles an hour without damage, yet this is what occurs daily all over the country. The automatic coupler has done its work too well. The men no longer risk life and limb in coupling cars; they simply open the knuckle and the engineer backs up. No one is killed or hurt when the cars come together just a little too hard, and it seems to the engineer and yard men a waste of time to make easy couplings. This is the reported practice in most yards and it is plain that the use of the humane and economical automatic coupler has developed a new source of loss and danger in careless handling. There is needed as concise a set of rules and as rigid discipline for yard men as has been developed in the standard code for enginemen and trainmen. A large proportion of the wrecks caused by break-in-tuos can be prevented by discipline in the yards. To give the men to understand that they are just as likely to lose their jobs if they handle cars recklessly as they were to lose their arms with the old link and pin couplers is obviously a right beginning.—*Railroad Gazette*.

The M.C.B. Report on Tank Cars.

The tank car has gradually assumed the character of the tramp and outcast in the car family—ragged, down at the heel and dirty. It has little respect from owner or carrier and is a menace to its associates wherever found. It is surprising that the railroads have continued to haul tank cars in such bad condition without more emphatic protest. This indifference is perhaps responsible for their present weak construction, and for the failure of the tank line companies to keep up with the procession in the use of modern designs in the maintenance of their equipment. The American Railway Association is now awake to the situation. It finds that the tank cars are the weak link in the chain of a freight train. At the same time they are loaded with inflammable and explosive materials, which cause wrecks to be doubly destructive.

The report on tank cars presented at the Master Car Builders' convention was made by request of the American Railway Association, and although the committee was appointed only in May, it has presented a report which explains the situation fully from a mechanical standpoint. It also suggests remedies which should not be difficult to apply, and which should rapidly improve the strength and safety of tank cars. This report and the one on "Steam Lines for Passenger Cars" are good illustrations of the effective work which can be done for the associations when the task is placed in the hands of someone who can take time to make it his special business, without the interruptions of regular routine work, with which all officers have been loaded down. The committee recommends the use of center sills only 18 inches apart instead of 48 inches, as heretofore. This will make the car much stronger in resisting buffing blows, and it will admit of the usual form of draft timbers, instead of the very weak form which has been used heretofore. The wooden bolsters, body and truck, are to be replaced by metal ones of modern design. It is surprising to find that many tanks are not equipped with air brakes, and these are now to be required for all cars, so that tank cars may occupy a central position in a train and thus be protected from both head and rear collisions. The trucks of the older tank cars should be entirely replaced by stronger ones, as they have become decrepit by long service.

They hardly admit of repairs which will make them adequate to present service. The experiments made by the Union Tank Line Co. on safety valves for tank cars have thrown new light upon the subject. They show that in order to carry off the vapors from a tank of naphtha and prevent pressure from accumulating when the tank is heated from below, two 5-inch safety valves are necessary for the large cars. They should be provided with a lip encircling the outer edge of the valve chamber at the top to prevent the vapor from the valve from igniting from a fire below.

The recommendations of the committee should be commenced promptly and immediately placed in effect. Their enforcement will be instrumental in insuring a much greater degree of safety to trains containing tank cars.—*Railway Age*.

Fast Run on the Canada Atlantic Ry.

The Canada Atlantic Ry. has from time to time made some very fast runs in connection with its express service between Montreal and Ottawa. The latest and the fastest was made recently; the train consisting of five cars, including the private car of C. M. Hays, Second Vice-President and General Manager, G.T.R., left the Central station, Ottawa, at 8.20 a.m. for Montreal. The cars were hauled by engine no. 618, with an engineer named Ferguson in charge. This engine is probably the finest and fastest passenger locomotive in Canada, and with her mate, engine no. 620, comprise the most interesting pair of locomotives in America to-day. Very little is said or even known to the general public as regards the great running powers of these engines, but their work on the eastern division of the line is conclusive evidence of their speed and endurance. After leaving Ottawa the train clipped along at an exceptionally fast pace, but owing to unforeseen delays at crossings, due to other trains and certain connections, the express arrived at Coteau Junction about seven minutes behind its schedule time. A short stop was made at Vaudeuil, and it was at this point that the engineer determined to make extra fast time. In a minute the train was under full steam, and from Vaudeuil to a point a little west of Dorval the express flew along at the record speed of exactly one hundred miles an hour or a mile in thirty-six seconds, arriving at Bonaventure station, Montreal, on time. When the train was stopped Mr. Hay, Senator Cox and other gentlemen who were on the train, made a minute inspection of the engine and the party incidentally congratulated Ferguson on his splendid run.

In conversation with a press representative Engineer Ferguson said that he felt certain that there was a speed of one hundred and ten miles an hour in his engine if he had occasion to put her to the test, and that he could make the run from Ottawa to Montreal, a distance of a hundred and sixteen miles, in one hour and fifty minutes without any great effort. The engine, which has driving wheels 7 ft. 6 in., was built at the Baldwin Locomotive Works two years ago.

The Canadian Westinghouse Co. (Ltd.) has been incorporated under the Dominion Companies' Act with a capital of \$2,500,000 to manufacture and deal in all kinds of machinery, engines, air brakes, etc., to acquire factories making such machines, etc. The company's offices are to be in Hamilton, where factories are to be constructed. The incorporators are: H. H. Westinghouse, of New York city; G. Westinghouse, G. C. Smith, F. H. Taylor, L. A. Osborne, of Pittsburg; T. Ahearn, W. Y. Soper, of Ottawa, Ont.; and P. J. Mylor, of Hamilton, Ont.

Grain Elevator Notes.

The G.T.R. is constructing a 1,000,000 bush. elevator on Windmill Point wharf, Montreal.

The press reports that the Great Northern Ry. elevator at Quebec was to be permanently closed down, are denied by the Company's officers.

The Prescott elevator, together with the buildings and wharves, etc., the property of the Prescott Elevator Co. (Ltd.), in liquidation, were advertised to be sold July 31.

The Ogilvie Flour Mills Co. are building 18 new elevators this season in Manitoba and the Northwest Territories. This will bring the number of elevators owned by the Company up to 100.

The Farmers' Elevator Co. of Roland, Man., has declared a dividend for the year of 40%. During the past five years the shareholders have divided 115% of the cost of the elevator, besides effecting considerable improvements.

The elevator under construction for the Montreal Harbor Commissioners, under the supervision of an engineer of the Department of Public Works, will not be completed until the opening of navigation, 1904. It was originally expected that the elevator would have been completed by Aug. 1. The elevator will have a storage capacity of 940,000 bush.

The new elevator under construction at Point Edward, Ont., for the Point Edward

Elevator Co., is expected to be completed early in August. The elevator consists of a working house, power house and annex or storage house. The working house is 48x48 feet and rests on 20 stone piers, each pier resting on 16 piles driven close together and sawed off at the river level. The basement is floored with concrete at the water line. The equipment of the working house consists of a marine leg of 12,000 bush. capacity, two sets of unloading shovels, a receiving leg to carry the grain from the marine leg, and two shipping legs to deliver the grain to cars. At the top of the building are three scales of 72,000 lbs. capacity. The bins in this building will contain 75,000 bush. The annex is 30 ft. distant from the working house, back from the river, and separated by the railway track. It is 166 x 126 ft. and has 36 bins; with a total capacity of 450,000 bush., which, with the bins already mentioned, gives the elevator a total capacity of 525,000 bushels. The method of conveying the grain is by means of wide rubber belts. These belts are in channels at each side of the building, between the rows of bins and below, and when the bins are opened the grain runs out on to the belt and is carried along to any desired bin or back to the working house to be weighed before going into the cars. The power house is 48 x 48 ft., and stands on the river bank just south of the main building. It will contain a 350-hp. engine and two boilers 16 ft. x 72 in. There will be a conical brick smokestack 177 ft. high, being one foot higher than the elevator.

SHIPPING MATTERS.**Dominion Marine Association.**

The enrollment of members of the Dominion Marine Association is proceeding satisfactorily, the following owners, with a list of vessels and tonnage represented, having been registered:

W. E. Bishop, Hamilton, Ont., representing the Hamilton Steamboat Co. Strs.: Macassa, 164 tons; Modjeska, 461 tons.

The Calvin Co. (Ltd.), Garden Island, Ont. Strs.: Simla, 973 tons; India, 573 tons; D. D. Calvin, 483 tons; Chieftain, 179 tons; Parthia, 85 tons; Frontenac, 64 tons; Johnston, 53 tons. Barges, etc.: Burma, 885 tons; Ceylon, 908 tons.

Canadian Lake and Ocean Navigation Co.,

DOMINION LINE STEAMSHIPS

FAST TWIN-SCREW SERVICE. WEEKLY SAILINGS.

MONTREAL TO LIVERPOOL

HALIFAX TO LIVERPOOL Via Queenstown
BOSTON TO LIVERPOOL Via Queenstown
BOSTON TO MEDITERRANEAN PORTS

MONTREAL TO LIVERPOOL

Canada	June 13th	July 18th	August 22nd
Kensington	" 20th	" 25th	" 29th
Dominion	" 27th	Aug. 1st	Sept. 5th
Southwark	July 4th	" 8th	" 12th

BOSTON TO LIVERPOOL

Commonwealth	July 2nd	July 30th	August 27th
New England	" 9th	Aug. 6th	Sept. 3rd
Mayflower	" 16th	" 13th	" 10th
Columbus	" 23rd	" 20th	" 17th

BOSTON TO MEDITERRANEAN

Vancouver	June 6th	July 18th	August 29th
Cambroman	" 20th	Aug. 8th	Sept. 19th

Spacious Promenade Decks, Electric Light. Passenger Accommodation all amidships.

The steamers on the Montreal and Boston services to Liverpool are all twin-screw and powerful steamers. They are fitted in the most modern style to enable the patrons of the Company to cross the Atlantic with comfort.

For all particulars apply to the local agent of the Company or to

A. F. WEBSTER,

Cor. King and Yonge Street, Toronto.

DOMINION LINE OFFICE,

17 St. Sacramento Street, Montreal.

MONTREAL STEEL WORKS, Limited

SUCCESSORS TO
THE CANADA SWITCH AND SPRING CO., Limited,
CANAL BANK, PT. ST. CHARLES, MONTREAL.

Manufacturers of Steel Castings

(Open Hearth System)

Springs, Frogs Interlocking Plants Installed
Switches Jenne Track Jacks, Etc.

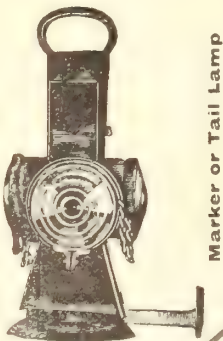
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RAILWAY SUPPLIES

STANDARD RULE TRAIN LAMPS
SWITCH LAMPS
STATION LAMPS
SHIP LAMPS
TRAIN ORDER SIGNALS

THE HIRAM L. PIPER CO., Limited

12 St. Peter St., Montreal. Manufacturers and Patentees



WINDMILLS
(Canadian Airmotor)

TANKS

TANK
FIXTURES

RAILROAD WORK
A SPECIALTY

Ontario Wind Engine
and Pump Co., Limited
TORONTO, - ONT.



T. A. MORRISON & CO.,
206 St. James St., Montreal.

New and Secondhand Contractors'
Plant, etc.

LATROBE STEEL COMPANY

MANUFACTURERS
OF

STEEL TIRES

FOR LOCOMOTIVES
AND CAR WHEELS

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BRANCH OFFICE: 1506 Bowling Green Offices - - 11 Broadway, NEW YORK

The Accident and Guarantee Co. of Canada, MONTREAL.

Capital, authorized, \$1,000,000.00
Subscribed - - 250,000.00

Personal Accident, Sickness, Fraternal
and Working Men's Benefit Insurance.

Toronto. Strs.: Turret Court, 1,197 tons; Turret Chief, 1,197 tons; Turret Cape, 1,142 tons.

The Canadian Pacific Car and Passenger Transportation Co. (Ltd.), Prescott, Ont. Strs.: City of Belleville, 68.80 tons; International, 268.82 tons; William Armstrong, 181 tons; Henry Plumb, 46.39 tons.

Jas. Carruthers, Toronto. Str.: Advance, 358 tons.

J. & T. Conlon, Thorold, Ont. Str.: Erin, 411 tons. Barge: F. L. Danforth, 643 tons.

R. Cunningham & Son, Port Essington, B.C. Strs.: Hazleton, 235.94 tons; Chieftain, 38 tons.

Dominion Fish Co. (Ltd.), Selkirk, Man. Strs.: Premier, 281.52 tons; City of Selkirk, 311.32 tons; Rocket, 21.05 tons; Fisherman, 30.06 tons; Idell, 36.67 tons; Daisy, 8.14 tons; Ogema, 14.07 tons; Chieftain, 28.23 tons; Angler, 10.99 tons; Miles, 42.87 tons.

Dominion Iron and Steel Co. (Ltd.), Sydney, N.S. Strs.: Bonavista, 837 tons; Caccouna, 931 tons; Coban, 689 tons; Cape Breton, 1,109 tons; D. H. Thomas, 144 tons; Louisburg, 1,182 tons. Barges, etc.: Grandee, 1,262 tons; Rembrandt, 1,413 tons; Mabel, 136 tons; Alice, 248 tons; Lizzie, 245 tons.

The Donnelly Salvage and Wrecking Co. (Ltd.), Kingston, Ont. Str.: Donnelly, 90 tons. Barge: Grantham, 325 tons.

Ewing & Fryer Fish Co. (Ltd.), Selkirk, Man. Strs.: Eagle, 5.79 tons; Keewatin, 14 tons; Cygnet, 10 tons.

F. E. Hall, L'Original, Ont. Str.: Iona, 157 tons.

Jas. J. Hall, Ottawa. Strs.: Hall, 136 tons; Olive, 103 tons; Welshman, 100 tons; Scotsman, 114 tons.

A. W. Hepburn, Picton, Ont. Strs.: Alexandrian, 508 tons; Niagara, 215 tons; Lloyd S. Porter, 379 tons; Aberdeen, 87 tons; Water Lily, 56 tons. Barges, etc.: Isabel Reed, 480 tons; L. W. Drake, 397 tons; Rob Roy, 341 tons.

A. Hicks, Trenton, Ont. Str.: Varuna, 85 tons.

R. F. Holcomb, Ottawa. Strs.: Hebron, 98 tons; Robert Anglin, 52 tons.

Huntsville, Lake of Bays and Lake Simcoe Navigation Co. (Ltd.), Huntsville, Ont. Tonnage not fully completed.

International Ferry Co., Buffalo, N.Y. Str.: Hope, 170 tons.

Midland Navigation Co. (Jas. Playfair), Midland, Ont. Str.: Midland Queen, 1,348.97 tons.

J. B. Miller, Toronto. Str.: Seguin, 566 tons.

Montreal Transportation Co., Montreal. Tonnage not fully completed.

Ottawa River Navigation Co. (R. W. Shepherd), Montreal. Strs.: Sovereign, 323 tons; Empress, 372 tons; Duchess of York, 261 tons; Princess, 298 tons; Victoria, 107 tons; Maude, 144 tons.

Niagara Navigation Co. (Ltd.), Toronto. Strs.: Chippewa, 763.55 tons; Corona, 648.90 tons; Chicora, 539.69 tons; Ongaira, 64.34 tons.

Northern Fish Co., Selkirk, Man. Str.: Lady of the Lake, 155.10 tons.

Northwest Navigation Co. (Ltd.), Selkirk, Man. Strs.: Princess, 228.62 tons; Frank Burton, 35.36 tons. Barges: Berens River, 334.94 tons; Nelson River, 219 tons; Sultana, 227.29 tons; Saskatchewan, 219 tons; Empress, 82.92 tons.

Rainy River Navigation Co. (Ltd.), Rat Portage, Ont. Strs.: Keenora, 268.89 tons; Agwinde, 143.13 tons; Edna Brydges, 119.72 tons; Majestic, 94.93 tons; Maple Leaf, 50.02 tons; City of Alberton, 38.84 tons; Undine, 6.44 tons.

The Rathbun Co., Deseronto, Ont. Strs.: Resolute, 262 tons; Reliance, 169 tons; Rescue, 37 tons; Ella Ross, 190 tons; Deseronto, 37 tons. Barge: Recruit, 296 tons.

Richelieu and Ontario Navigation Co., Montreal. Tonnage not fully completed.

Rideau Lakes Navigation Co., Kingston, Ont. Strs.: Rideau Queen, 195 tons; Rideau King, 196 tons.

The St. Lawrence and Chicago Steam Navigation Co. (Ltd.), Toronto. Strs.: Iroquois; 1,451 tons; Algonquin, 1,172 tons; Rosedale, 977 tons.

The Toronto and Montreal Steamboat Co. (Ltd.), Toronto. Str.: Persia, 500 tons.

The Trent Valley Navigation Co. (Ltd.), Bobcaygeon, Ont. Strs.: Esturion, 84.97 tons; Empress, 57.48 tons; Ogema, 45.15 tons; Maneta, 23.19 tons; Ajax, 23.42 tons.

The Upper Ottawa Improvement Co. (Ltd.), (G. B. Greene), Ottawa. Strs.: E. H. Bronson, 180 tons; Alex. Fraser, 174 tons; C. B. Powell, 172 tons; Pembroke, 122 tons; Hamilton, 202 tons; J. B. Murphy, 109 tons; Albert, 199 tons; G. B. Greene, 218 tons; G. B. Pattee, 18 tons; Hercules, 13 tons; Samson, 7 tons; Beaver, 8 tons; Mink, 9 tons.

The Wentworth Navigation Co., Toronto. Str.: Ocean, 455 tons.

A. Wright, Toronto. Strs.: Charlton, 265 tons; Reginald, 13 tons; Tadousac, 2,500 tons.

The Secretary, F. King, of Kingston, Ont., has received a large number of replies to the circular sent out in reference to the proposed alterations of the Steamboat Inspection Act, and the information contained therein will be laid before the special committee to which the bill was referred by the House of Commons. A meeting between the engineers and the owners of steamers for the discussion of the matter has been suggested, and may take place before the Committee of the House of Commons sits. In connection with the removal of the canal tolls on the St. Lawrence route, it is reported from all points that there has been a very large increase in the quantity of grain passing through, and the statement is made that the transshipping facilities at Kingston are insufficient. The Kingston people say that this is not the case, as at no time have the elevators there been taxed in the slightest degree, the difficulty being due to the lack of barge capacity, and this is occasioned by the delay in freeing the river barges at Montreal.

An incident in connection with the use of the Government dock at Kingston showed the usefulness of the association. A very small Government tug, the Delisle, was to be docked for repairs of a lengthy duration, and a mild protest was sent to the Department of Marine, as there is a smaller dock and a marine railway at Kingston, either of which might have been used. The Department replied that the Government must use its own dock for its own purposes, but the satisfactory announcement was made that the Delisle would not be stripped, but would be held ready for removal at a few hours' notice should occasion require. As a matter of fact the Delisle was removed July 8, to make way for a larger steamer requiring repairs.

Shipping Federation of Canada.

The Dominion Parliament has passed an act incorporating the Montreal representatives of the trans-Atlantic lines and others interested in marine matters who may hereafter become associated with them, under the title of the Shipping Federation of Canada. The objects of the federation are to amalgamate ship owners and shipping agents and others interested in shipping into one association for the purpose of considering all questions affecting the shipping trade of Canada, or other trades connected therewith, and to take such action as may be deemed advisable to protect and indemnify its members against loss arising in the management of their trade, without their actual privity or fault, which in the opinion of the federation, should in its interests or in the

interests of the trade, be made good; to establish branches throughout Canada; and to have all the necessary powers for carrying these objects into effect. For the purposes of organization H. A. Allan, W. I. Gear and J. Thom are named in the act as the provisional council, with full power to act until the permanent executive council is chosen. (April, pg. 143.)

Notices to Mariners.

The following notices to mariners have been issued by the Department of Marine:

No. 29. July 18.—Lake Huron—1472. St. Clair river, northern approach, shoal spot reported. 1473. St. Clair river approach, menace to navigation.

No. 44. June 10.—Ontario—106. Georgian bay, Meaford, lights, description of harbor. 107. Lake Huron, Stokes bay, back beacon blown down.

No. 45. June 11.—Copies of U.S. notices relating to Juan de Fuca strait and Alaska.

No. 46. June 12.—Ontario Lighthouse division—112. River St. Lawrence, Lake St. Louis, off Windmill point, gas buoy removed.

No. 47. June 13.—New Brunswick—114. Northumberland strait, Kouchibouguac bay, Sapin point, fishing light established.

No. 48. June 16.—Quebec—115. Gulf of St. Lawrence, Gaspé coast, Barachois de Malbaie, pole light established. 116. River St. Lawrence, ship channel Quebec and Montreal, intended changes between Platon and Grondines.

No. 49. June 17.—Ontario—117. River St. Lawrence, shoal off Wolfe island, displacement of buoys, warning. 118. Georgian bay, Collingwood harbor, sailing directions. 119. Lake Huron, north channel, St. Joseph island, Tenby bay, uncharted shoal.

No. 50. June 18.—Quebec—123. River St. Lawrence, ship channel between Quebec and Montreal, Ile Bouchard range lights put in operation.

No. 51. June 22.—Quebec—124. River St. Lawrence, ship channel between Quebec and Montreal, off Cap Levant, shoal spot reported. 125. River St. Lawrence, ship channel between Quebec and Montreal, Champlain cut, bar formed.

No. 52. June 22.—New Brunswick—126. Chaleur bay, Restigouche river, Maguacha spit, character of buoy. Prince Edward Island—127. Northumberland strait, Wood islands channel, buoyage. 128. Gulf of St. Lawrence shore, New London harbor, new range lights established. 129. North coast, Cascumpeque harbor, Northport, range light towers enclosed.

No. 53. June 23.—Ontario—130. Lake Huron, Pine Tree harbor, private lights discontinued. 131. Georgian bay, east side, Lone rock, bell buoy replaced in position.

No. 54. June 30.—Quebec—132. River St. Lawrence below Quebec, Rimouski road, gas buoy established. 133. River St. Lawrence below Quebec, colors of buoys changed.

No. 55. June 30.—Quebec—134. River St. Lawrence, ship channel between Montreal and Quebec, Lake St. Peter, lightship no. 2, temporarily removed.

No. 56. July 3.—Nova Scotia—138. South coast, off Gannet dry ledge, bell buoy established. 139. Northumberland strait, Pictou bar, lighthouse burned down, temporary light. New Brunswick—140. Bay of Fundy, Passamaquoddy bay, Cherry island, fog bell established.

No. 57. July 6.—New Brunswick—143. East coast, Escumiac point, fog alarm temporarily discontinued. 144. Gulf of St. Lawrence, Miscou island, fog alarm temporarily discontinued.

No. 58. July 8.—British Columbia—145. Queen Charlotte sound, uncharted rock off Redfern island.

No. 59. July 13.—Nova Scotia—148.

South west coast, Baccaro point, charge in light. New Brunswick—149. Northumberland strait, Buclouche harbor, buoyage.

No. 60. July 14.—British Columbia—151. Vancouver Island, southeast coast, Esquimalt, Duntze head, longitude. 152. Strait of Georgia, Fraser river, removal of beacon lights. 153. Queen Charlotte sound, Egg island, lighthouse moved.

No. 61. July 16.—Quebec—155. River St. Lawrence, ship channel between Quebec and Montreal, Champlain Cut, dredging. 156. River St. Lawrence, ship channel between Quebec and Montreal, Ile aux Raisins, back range lighthouse rebuilt.

No. 62. July 17.—Nova Scotia—157. South coast, Pennant harbor, light established. New Brunswick—158. East coast, North Tracadie, outer range light re-established.

The following notices have been issued by the U.S. Hydrographic department:

No. 26. June 27.—Lake Erie—1297. Presque Isle bay, Erie harbor, buoys to be shifted in position.

No. 27. July 4.—Lake Erie—1357. Presque Isle bay, Erie harbor, buoys shifted. 1358. St. Mary's river, buoyage. 1359. St. Mary's river, St. Joseph island, Tenby bay, shoal reported.

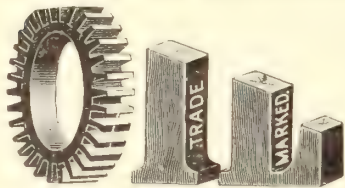
Maritime Provinces and Newfoundland

Capt. A. N. Smith, commander of the Battle line str. Nemea, and a native of Yarmouth, N.S., died recently in Antwerp.

The Beatrice E. Waring, a new steamer for the Belle Isle route, has been completed at St. John, N.B., and placed in service.

Capt. Jesse Harris, of Westport, N.S., who died there recently, aged 97, was probably the oldest mariner in the Maritime Provinces.

Capt. Hatfield, a well-known Nova Scotian mariner, and latterly a marine surveyor in Liverpool, Eng., died there recently, aged 67.



For Steamboats AND RAILWAYS

Vacuum Oils Reduce Friction, thus saving Coal and preserving Machinery.

VACUUM 600 W. CYLINDER
VACUUM No. 1 MARINE ENGINE (better than Lard)
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MINERAL SEAL OIL

300 Fire Test, for Illuminating Purposes

THE **QUEEN CITY OIL CO. LIMITED**
SAML. ROGERS PRES. TORONTO

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FURS and HATS

SPRING HATS ALL IN.
EVERYTHING UP-TO-DATE.

In Ladies' Ready-to-Wear we are showing a select stock. Prices reasonable.

Ladies, now is the time to have your Furs repaired and remodelled. Fur Show Rooms open at all seasons.

Catalogue and Price List sent on application.

Holt, Renfrew & Co.
TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1902, gives the following statistics for the year:

CROPS.		
ACRES.	AVERAGE YIELD.	TOTAL.
Wheat.....2,039,940	26. bus.	53,077,267 bus.
Oats.....725,060	47.5 "	34,478,100 "
Barley.....329,790	35.9 "	11,848,422 "
Potatoes.....22,005	157. "	3,459,325 "

STOCK.
Number of stock in the Province, July 1, 1902:
Horses.....146,591
Cattle.....282,343
Pigs.....95,598
Value of Dairy Products.....\$926,314

15,000 FARM LABORERS
Came from Eastern Canada to assist in the harvest fields of Manitoba in 1902—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.
Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,000,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

For full information, maps, etc., FREE, address
JAMES HARTNEY, Manitoba Emigration Agt.,
77 York Street, Toronto, Ont.
Or J. J. GOLDEN, Manitoba Emigration Agt.,
617 Main St., Winnipeg, Man.



FARMING IN THE SOUTH.

The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free, Circulars as they are published from month to month. The Local Agent is asked to note Cheap Rates to all the North West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. December folder is a good one. Get it!

G. B. WYLLIE,

Canadian Passenger Agent,

210 ELLICOTT SQUARE, BUFFALO, N.Y.

RICHELIEU AND ONTARIO NAVIGATION COMPANY.

"Niagara to the Sea."

MAIL LINE STEAMERS

(Palatial Steel Steamers)

Leave Toronto (from June 1st to 13th) Mondays, Wednesdays and Saturdays; thereafter daily, except Sunday, for Rochester, Kingston, Clayton, 1,000 Island Points and intermediate ports (running all the Rapids) to Montreal, where connection is made with steamers for Quebec, Murray Bay, Tadoussac and points on the famous Saguenay River.

HAMILTON LINE

(Fine Iron Steamers)

Plying between Hamilton, Toronto, Montreal and intermediate ports, passing through the picturesque scenery of the Bay of Quinte, 1,000 Islands and shooting the Rapids.

Service: Tri-weekly, Tuesday, Thursday and Saturday from Hamilton and Toronto. Monday, Wednesday and Friday from Montreal.

For further particulars apply to

H. FOSTER CHAFFEE, W.P.A.,

2 King Street E., Toronto,

JOS. F. DOLAN, C.P. & T.A.,

128 St. James Street, Montreal;

or,

THOS. HENRY, Traffic Manager,

Montreal.

15-Day Excursion

TO

NEW YORK

ROUND TRIP TICKETS ON SALE
TUESDAY, AUGUST 11th,

From Suspension Bridge, Niagara Falls and Buffalo, at \$10.25.

\$10.25 BY THE \$10.25

New York Central,

\$9.00 BY THE \$9.00

West Shore,

With privilege of a trip on Hudson River Steamers between Albany and New York.

Call on or address

L. DRAGO,

Canadian Passenger Agent,

(69) Yonge Street, Toronto.

Telephone Main 4361.

The Eastern Steamship Co.'s new str. Calvin Austin made her initial trip between Boston, Mass., and St. John, N.B., July 16.

The St. Pierre, a 75 ton steamer has recently been completed at Yarmouth, N.S. She will trade between St. Pierre, Miquelon, and Newfoundland.

Press reports state that the Canada Atlantic and Plant Steamship Co. will have a new steamer, to be named the St. John, built in Scotland, to run between Boston, Mass., St. John, N.B., and Halifax, N.S.

Among recent launches have been a 277 ton schooner at Parrsboro, N.S., a 250 ton barkentine at Liverpool, N.S. and a 270 ton schooner at Port Greville, N.S.

The Dominion Government has awarded a gold watch and chain to Capt. Bray, of the Boston barkentine Kremlin, for rescuing the crew of the Nova Scotian bark May in Sept., 1901.

A French firm of shipbuilders at St. Nazaire, France, proposes to establish a shipbuilding and repairing yard at St. Pierre, Miquelon. Nova Scotia and Newfoundland yards at present secure the business of this French possession.

The Dominion Atlantic Ry. has removed the offices of its marine department from Boston, Mass., to Yarmouth, N.S. Yarmouth was the headquarters of the Yarmouth Steamship Co., which was absorbed by the D. A. Ry. Co. early in 1902.

The court of enquiry into the recent grounding of the str. Halifax, in Halifax harbor, N.S., has found that the cause of the grounding was owing to her having been caught by a strong westerly current, and that the officers were in no way to blame for the accident.

Province of Quebec Shipping.

The Norwegian str. Protector, with a cargo of pulp from Chicoutimi, which was wrecked near the mouth of the Saguenay river, has been sold by the underwriters for \$3,100.

The Quebec Steamship Co. has purchased the str. Allandale in Great Britain, for the New York—West Indies run, to replace the steamer lost off the Bermuda islands, early in the year.

The Minister of Marine has ordered 25 of the latest pattern of gas buoys for the St. Lawrence channel between Montreal and Quebec. The buoys are to be put in position this season.

Capt. Fraser, of Sydney, N.S., has taken over the duties of Marine Superintendent of the Montreal Transportation Co., and is visiting the different ports between Montreal and Port Arthur.

About 440 ft. of the new wharf under construction at Father Point has been completed and it is expected to have the remaining 160 ft. completed this year. Heney & Smith are the contractors.

A fine of \$25 has been inflicted on Capt. Murray of the str. Devona, for unnecessary whistling when passing Quebec. Many residents of Quebec city are complaining of the whistling of steamers when passing up and down the river.

The Easton Steamboat Co., (Ltd.), has been incorporated under the Dominion Companies' Act to carry on a general navigation and wrecking business. The capital of the company is fixed at \$10,000 and the offices are to be at Quebec. The incorporators are W. and I. B. Easton, of Albany, N.Y.; G. F. Gisborne, L. A. Taschereau, L. A. Cannon, of Quebec.

The Ewart Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$90,000 and offices at Montreal, to acquire the coal and ice business of J. T. Ewart, and in connection therewith to "ac-

quire tugs and other means of transport." The incorporators are J. Farquharson, G. MacL. Webster, J. T. Ewart, W. Johnston, F. Bayard, F. X. St. Onge, D. W. Lockerby, and G. Maybury, of Montreal.

The Richlieu and Ontario Navigation Co. has placed the str. Virginia in service on its Quebec-Saguenay route. The Virginia is a sister ship to the Carolina acquired by the company in 1902, and was formerly owned by the Baltimore Steam Packet Co. The Virginia is an iron steamer, built at Wilmington, Del., in 1879, her dimensions being: length, 251 ft.; breadth, 34 ft.; depth, 7 ft. 9 in.; tonnage gross 990 tons; register, 666 tons. She is fitted with a single cylinder vertical beam engine; boiler, five ft. by eleven ft., and develops 800 h.p., nominal.

Ontario and the Great Lakes.

The Dominion Government lightship tender Arabian went ashore recently on Pigeon island, near Kingston, Ont.

Local reports in Hamilton credit the Hamilton Steamboat Co. with having decided to have a new steamer built on the Clyde and to sell the Macassa as soon as the new steamer is ready.

It is currently reported in Hamilton that negotiations are in progress for the purchase of a turbine steamer to be brought out from Scotland and operated between Hamilton and Toronto.

The Northern Navigation Co. is considering the building of a steamer for the local excursion trade on Georgian bay. At present there is not a steamer available for this special traffic.

The Colonial Portland Cement Co. has deposited plans with the Department of Public Works, Ottawa, for a large dock which it proposes to construct on Colpoys bay, near Warton, Ont.

The G.T.R. car ferry Lansdowne has been thoroughly overhauled, fitted with new boilers, and a fourth smoke-stack added. The Lansdowne is used on the Detroit river between Detroit, Mich., and Windsor, Ont.

The Dominion Government has granted a gratuity of \$1,050 to Capt. McGregor, of Goderich, on his retiring from the command of the hydrographic survey steamer Bayfield, recently sold out of the service, and replaced by a larger and more powerful steamer.

The Huntsville, Lake of Bays and Lake Simcoe Navigation Co. has placed its new str. Maple Leaf in service. The Maple Leaf has a length of 56 ft., a breadth of 11 ft., and is fitted with fore and aft compound engines, 6 in. and 12 in. cylinders, by 19-in. stroke.

The second of the new steamers ordered in Great Britain by the Montreal Transportation Co., has arrived at Kingston from Newcastle-on-Tyne, Eng. She is named the Fairmount, and is a sister ship to the Westmount, dimensions of which were given in our last issue.

The opening of the Canadian Northern Ry. to Port Arthur, Ont., is responsible for the shipping of white pine from the Rainy River district to Scotland, for shipbuilding purposes. Sixteen carloads of white pine were recently received at Port Arthur and shipped to Glasgow, via Quebec.

The str. Lawrence, of the Thousand Islands Steamboat Co., broke her walking beam, while running at full speed in midchannel July 15, and considerable damage was done to the machinery and upper works before the engine could be stopped. The St. Lawrence will be repaired at Kingston.

The Dominion Parliament has passed an act settling the title to certain lands in Hamilton, over which a mortgage was given to the Crown in 1832 in connection with the construction of the Desjardins canal, from Ham-

ilton to Dundas. The act declares the lands to be discharged from any claim under the mortgage.

The U.S. courts at Rochester, N.Y., have given a decision in favor of W. L. & H. W. Visger Co., who sought docking rights at Alexander's Bay, N.Y., where the Thousand Islands Steamboat Co., Kingston, Ont., claimed special rights. H. S. Folger, General Manager of the T.I.S. Co., says that the decision will be appealed against.

The Canadian Northwest Steamship Co. has been incorporated under the Dominion Companies' Act, to carry on a general navigation business on the Great Lakes and adjacent waters and on the high seas. The capital is placed at \$250,000, and the head offices are to be at Port Arthur, Ont. The incorporators are G. T. Marks, H. A. Wiley, F. S. Wiley, G. M. Murray, of Port Arthur, and H. Cassels, K.C., of Toronto.

The str. White Star, of Toronto, which had been undergoing extensive repairs at the Polson Iron Works after a recent accident to her machinery, was removed to her dock, July 10, to resume her route to Oakville on the following day. During the night fire broke out and the steamer was completely destroyed. The steamer is valued at \$40,000, and insurance of \$25,000 was carried. The Oakville Navigation Co. chartered the str. Niagara for the service, pending the purchase or building of another steamer.

The str. W. D. Matthews, for the St. Lawrence and Chicago Steam Navigation Co., was launched at Collingwood recently. Her dimensions are: length over all, 375 ft.; breadth, 48 ft.; depth of hold, 28 ft.; register tonnage, 3,959 tons; deadweight capacity, 5,500 tons on a draught of 13 ft., and 6,100 on a draught of 19 ft. She is fitted with three pole masts, three derricks and three steam hoists to facilitate the handling of freight. The engines are triple expansion with cylinders 20 in., 33½ in. and 55 in. diameter, by 40 in. piston stroke, and steam is supplied by two Scotch boilers 14 ft. diameter by 12 ft. long.

The Canadian Transit Co. (Ltd.) has been incorporated under the Ontario Companies' Act to carry on a general transportation business, and for that purpose to acquire steam and other vessels; to construct piers, wharves, etc.; to enter into an agreement with the New Canadian Co. for the purchase of its undertaking. The capital of the company is fixed at \$1,000,000, and the head office is to be at Ottawa. The incorporators are: R. Bickerdike, marine underwriter; A. Lemieux, C. N. Blakely, steamship agents; R. Lemieux, K.C., all of Montreal; C. B. K. Carpenter, of London, Eng. Some of the incorporators are also promoters of the New Canadian Co. (see under Railway Development, etc.) R. Bickerdike states that the company has five steamers are being built in England for the company's grain-carrying trade between Montreal and Port Arthur, and that a number of barges will be purchased.

The total freight passing through the Canadian and the U.S. canals at Sault Ste. Marie, in June, was 5,105,078 tons, against 4,721,608 tons in June, 1902. The figures for the Canadian canal are:

	1903.	1902.	Increase or Decrease.
April	159,763 tons	190,926 tons	31,163 tons—
May	636,747 "	314,262 "	322,485 " +
June	917,105 "	1,118,564 "	201,459 " —
	1,713,615 tons	1,623,752 tons	89,863 tons—
	+ increase. — decrease.		

A committee has been appointed by the board of trade of Fort William to act with J. Conmee, M.L.A., in bringing the claims of the port for improvement before the Dominion Government. It is claimed that the development of the port is being hindered by reason of the small amount of money voted for im-

provements. The river is from 25 to 30 ft. deep for nearly six miles from the lake, with the exception of one or two points where sand bars have been formed. There would be no difficulty, it is stated, in dredging and maintaining a channel 400 ft. wide and 22 ft. deep, for the whole six miles, and thus make Fort William one of the best natural harbors on the lakes.

Manitoba and the Northwest Territories.

The Imperial Fish Co., of West Selkirk, Man., has had built a new steamer, the Wolverine. The dimensions are: length of keel, 125 ft.; length over all, 135 ft. 10 in.; breadth 25 ft.; depth, 8 ft. 10 in.

The feasibility of navigation on the Saskatchewan river, east and west of Edmonton, Alta., is being investigated by Crockett and Blum, of Forsythe, Montana. In the fall of 1902

representatives of this firm made a trip on the river, and as result have constructed a 30ft. gasoline launch, with which a thorough survey will be made of the river to ascertain what size and character of a steamer will be most suitable for the probable traffic.

B.C. and Pacific Coast Shipping.

The Coutli Shipping Co., (Ltd.) has been incorporated under the B.C. Companies' Act with a capital of \$50,000 for the purpose of owning and operating steamers and other vessels and to carry on a general navigation business.

Capt. C. Hackett has been appointed to the command of the Dominion cruiser Quadra, at Victoria, B.C., succeeding Capt. Walbran. Capt. Hackett is interested in the Victoria Sealing Co. and has been navigating vessels on the B.C. coast since 1889.

The Bark Antiope Co. (Ltd.) has been incorporated under the B.C. Companies' Act with a capital of \$32,000 to purchase the Antiope of Liverpool, and carry on a general navigation business. The Antiope is an iron bark, built at Port Glasgow, Scotland, in 1866, and is of 1,365 tons register.

The str. Ramona, which was wrecked near Sumas, B.C., some months ago, has been practically re-built at New Westminster, and has been again placed in service on the Fraser river. The rebuilt steamer has a draught of 20 inches aft, and 14 inches forward, about one-half the former draught.

The Ship Lord Templeton Co. (Ltd.) has been incorporated under the B.C. Companies' Act, with a capital of \$70,400 to carry on a general navigation business. The Lord Templeton is now registered at Victoria, B.C., but was built at Belfast, Ireland, in 1886. She is a steel ship of 2152 tons gross.

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The B.C. Tourist Association, Vancouver, B.C., has secured, as a relic, one of the life-boats of the str. Beaver, built at Blackwall, Eng., in 1836 for the Hudson's Bay Co., and the pioneer steamer in the Northern Pacific. It is proposed to make an endeavor to raise the Beaver, which was wrecked at Stanley Park, July 26, 1888.

The North Vancouver Ferry and Power Co. (Ltd.) has been incorporated under the B.C. Companies' Act, with a capital of \$100,000 to carry on a ferry business on Burrard Inlet, and a general navigation business in the province. The Co. has acquired the str. Mermaid for the ferry service between Vancouver and North Vancouver.

A proposal has been made by an English shipbuilder to establish an ocean patrol for the purpose of giving aid to vessels in distress. The proposal is to have a number of specially equipped vessels to patrol the North Atlantic ocean along the line of the great ocean steamers on a regular schedule, of which all steamship lines would have due notice, so that in case of accident they would be able to know when and where they might look for a patrol boat to render aid.

The judicial committee of the Privy Council in London, Eng., has decided that the Anchor Line str. Furnesia cannot recover salvage for rendering aid to the ferry str. Scotia while being brought out from England to Halifax, N.S., for the Intercolonial Ry. The court held that the Scotia was the property of the crown, and no action could lie, but recommended that the Dominion Government make a payment as a matter of grace.

The Department of Marine proposes to establish a new certificate to be called a home trade certificate, and to otherwise amend the act with respect to certificates to masters and mates.

The act increasing the Government subsidy towards the construction of dry docks to 3% has been passed by the Dominion Parliament.

Among the Express Companies.

The Dominion Ex. Co. has withdrawn its service from the Esquimalt and Nanaimo Ry.

The Dominion Ex. Co. has opened a route on the C.P.R. from Forest to Lenore, Man.

The Dominion Ex. Co. has extended its service on the Bay of Quinte Ry. from Napanee to Deseronto, Ont.

The Dominion Ex. Co. has extended its route from West Selkirk to Winnipeg Beach, Man., on the Winnipeg Beach branch, C.P.R.

Geo. Severs has been appointed Foreign Traffic Agent, Canadian Ex. Co. at Montreal. He is to be addressed on all matters relating to European business.

C. A. Folwell, Chief Clerk, Dominion Ex. Co. at Sault Ste. Marie, Ont., has been transferred to the Company's Winnipeg office, and has been succeeded by A. McPhail.

R. Murphy, heretofore acting Route Agent, Central division, Canadian Ex. Co. at Montreal, has been appointed Route Agent, same division, succeeding F. H. Hackett.

The Dominion Ex. Co. has closed its offices at the following points: Creston Jct., Ladysmith, B.C.; McTaggart, Assa.; Anderson's Pit, Athara, Norman, Ont.; Conception, L'Ange Gardien West, Quebec.

On July 1 all the express companies doing business in Canada and the United States introduced a new schedule of rates on all small parcels. This re-arrangement of rates on all small stuff was ordered at the last meeting of the amalgamated board of express companies and has been found necessary on account of the increased freight rates being charged by the railroads.

Telegraph and Cable Matters.

The G.N.W. Telegraph Co. has opened an office at Little Metis Lighthouse, Que.

The United States Government proposes to erect a number of wireless telegraph stations in Alaska.

The new lines being strung in Cape Breton, by the Public Works Department, will be connected at North Sydney with the lines of the Western Union system.

The recently completed U.S. telegraph line in Alaska, connecting St. Michael with Dawson, Yukon territory, and with the U.S. cable at Sitka, has been seriously damaged by forest fires.

Mackenzie, Mann & Co. propose to install a system of wireless telegraphy, with stations at convenient points between Toronto and Port Arthur, Ont., in connection with the steamship service of the Canadian Northern Ry.

J. C. Leslie, in the employ of the Anglo-American Telegraph Co. at Corn River, Nfld., is spending a holiday in Canada, the first time he has been away from his station during the entire period of his service of nearly fifty years.

The Pacific Commercial Cable Co.'s cable from San Francisco, Cal., to Manila, in the Philippine islands, has been completed. Congratulatory messages were exchanged between C. H. Mackay, President of the company, and the President of the United States.

The Globe of July 9 republished the following item from its issue of July 9, 1853: "It is about a year since the Grand Trunk Telegraph Company was organized. An advertisement in another column will speak its progress. Every share of the stock is now taken. We learn it will reach Montreal and Buffalo in a moment."

A Vancouver, B.C., press report of recent date states that the G.N.W. Telegraph Co. has under consideration a proposal to construct a land cable to Dawson, Yukon Territory, from some convenient point. The suggestion is made that the line will be carried through Alaska, and reach the U.S. cable to Seattle, Wash., at Sitka, Alaska.

Replying to a question in the British House of Commons recently, the Colonial Secretary stated that the capital outlay in connection with the all-British trans-Pacific cable did not include the cost of special surveys made by the Royal Navy. The soundings made by the surveying ships of the Royal Navy on the route, though of great value, were incidental to and made in the course of their ordinary operations. The special detailed survey required for the determination of the exact route to be followed by the cable was carried out, not by the Royal Navy, but by the contractors for the construction and laying of the cable. He added the information that "the question of a connection with the United States cable at Honolulu has been raised, but no action has yet been taken in that direction."

Dominion Telegraph Company.

The annual meeting was held at Toronto July 9. Following is the financial statement for the year ended June 30, 1903:

ASSETS.

Capital expenditure.....	\$1,281,819 47
Toronto, Grey & Bruce Ry. Co. 1903 bonds and interest thereon.....	1,596 24
Cash in Bank.....	29,539 58
Suspense.....	52 87
	<hr/>
	\$1,313,008 16

LIABILITIES.

Capital stock paid up.....	\$1,000,000 00
Dividends unclaimed.....	769 85
Dividend No. 108, payable July 15, 1903.....	15,000 00
	<hr/>
Balance at credit of Profit and Loss Account.....	297,238 31
	<hr/>
	\$1,313,008 16

The directors reported the regular payment, quarterly in advance of the guaranteed interest at the rate of 6% per annum on the capital stock of the Co. by the lessees, the Western Union Telegraph Co., up to June 30, 1903, which interest has been duly distributed quarterly to the shareholders of the Dominion Co.

The officers for the current year are: President, T. Swinyard; Vice-President, T. R. Wood; other directors, B. Brooks, T. F. Clark, R. C. Clowry, A. E. Jarvis, C. O'Reilly, M.D., H. Pellatt, A. G. Ramsay; Secretary and Treasurer, F. Roper.

General Telephone Matters.

The Bell Telephone Co. declared a dividend of 2%, payable July 15, to shareholders of record of June 30.

The Sault Ste. Marie, Ont., town council has granted a franchise to the Bell Telephone Co. for a period of five years.

The Bell Telephone Co. has issued a map of its long distance lines in Ontario and Quebec, specially lithographed for affixing on office walls.

There is one telephone to every 63 inhabitants in British Columbia; one to every 89 inhabitants in Ontario, and one to every 102 inhabitants in Quebec.

The Rat Portage town council will take over the business of the Citizens' Telephone and Electric Light Co. as soon as the accounts between them are adjusted.

The Westport and Digby Telephone Co. proposes selling its business and winding up the Company. A meeting of its shareholders was called for July 31, at Westport, N.S., to consider the proposal of the directors.

By an act passed at the last session of the Ontario Legislature it is enacted that neither the town council of Fort William nor of Port Arthur can sell or lease its municipal telephone system without obtaining the assent of the taxpayers.

The New Brunswick Telephone Co. is equipping a local exchange at St. Andrew's, N.B. It proposes to string new lines from St. John to Fredericton; from St. John to Sussex, and from Woodstock to Houlton. The new lines will require about 200 miles of wire.

The Montreal city council has decided to appoint an engineer to prepare plans and estimates for a conduit system for the wires of the electric companies doing business in the city. J. A. Baylis has been appointed by the Bell Telephone Co. to act as its engineer in connection with the preparation of plans, etc.

The franchise of the Bell Telephone Co. in Kingston, Ont., will expire July 1, 1904, and after negotiations a new contract has been arranged with the city council. The wires are to be placed underground, the company paying \$500 a year for the use of the streets, giving three free telephones, and agreeing not to charge more than \$25 and \$30 for telephones during the life of the contract, which is to run for five years.

In the action brought by the Fort William, Ont., town council for injunctions and damages against the Bell Telephone Co., recently heard at Port Arthur, Ont., the judge ordered the case to be dismissed, and directed that the town council should not take any further proceedings until the action of the Toronto city council against the Bell Telephone

Co. had been decided. The Company was given \$1 damages, and costs for loss sustained by reason of the injunctions granted.

The Conn Telephone Co. has been incorporated under the Ontario Companies' Act to carry on a general telephone business in the counties of Wellington, Grey and Dufferin, and to maintain offices in Mount Forest, Conn, Egerton, Stonywood, Monck, Damascus, Kingscote, Cedarville, and other places. The capital is fixed at \$1,500, and the offices are to be at Conn. The incorporators are: A. R. Perry, G. W. Burrows, Conn; T. Begley, Proton; M. Manion, A. Howes, West Luther.

The Central Telephone Co. (Ltd.) is applying for incorporation, under the New Brunswick Companies' Act, to construct a telephone line from St. John to Fredericton, and throughout the counties of Kings, Queens, Sunbury and York; with power to acquire local lines in these counties. The head office is to be at Belleisle Creek, and the capital is fixed at \$10,000. The applicants for the charter are; G.G.G. Scovill, Belleisle Creek; E. G. Evans, Hampton; J. M. Scovill, St. John; L. P. Farris, White's Cove; W. Pugsley, J. Domville, Rothesay.

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PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Steam Shovels

James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Steel

James Cooper.....Montreal.
B. J. Coghlin & Co.....Montreal.
Wm. Jessop & Sons.....Sheffield, Eng.
Rice Lewis & Son.....Toronto.

Steel Buildings

Dominion Bridge Co.....Montreal.

Steel for Springs

James Hutton & Co.....Montreal.

Steel Plate

Jas. W. Pyke & Co.....Montreal.

Steel Tires

B. J. Coghlin & Co.....Montreal.
James Hutton & Co.....Montreal.
Latrobe Steel Co.....Philadelphia, Pa.
Jas. W. Pyke & Co.....Montreal.

Structural Metal Work

Dominion Bridge Co.....Montreal.
Locomotive and Machine Co. of Montreal.....
Jas. W. Pyke & Co.....Montreal.

Switches

Montreal Steel Co.....Montreal.

Switch Lamps

The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Switch Ropes

The B. Greening Co.....Hamilton, Ont.

Switch Targets

Acton Burrows Co.....Toronto.

Tanks and Tank Fixtures

Ontario Wind Engine and Pump Co.....Toronto.

Telegraph and Telephone Office Signs

Acton Burrows Co.....Toronto.

Tie Plates

B. J. Coghlin & Co.....Montreal.

Tobacco and Cigars

The Hudson's Bay Company.....

Toilet Paper

The Hudson's Bay Company.....

Tools

Rice Lewis & Son.....Toronto.

Track Jacks

James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

Track Tools

Canada Switch and Spring Co.....Montreal.
James Cooper.....Montreal.
Rice Lewis & Son.....Toronto.
W. H. C. Mussen & Co.....Montreal.

Tramway Equipment

James Cooper.....Montreal.
W. H. C. Mussen & Co.....Montreal.
J. J. Gartshore.....Toronto.

Trucks (Electric Car)

Baldwin Locomotive Works.....Philadelphia, Pa.
Montreal Steel Co.....Montreal.

Trucks (Warehouse and Express)

Rice Lewis & Son.....Toronto.

Turntables

Dominion Bridge Co.....Montreal.

Varnishes

McCaskill, Dougall & Co.....Montreal.

Vessels

Polson Iron Works.....Toronto.

Waste

B. J. Coghlin & Co.....Montreal.
Rice Lewis & Son.....Toronto.
N. L. Piper Ry. Supply Co.....Toronto.
The Queen City Oil Co.....Toronto.

Wheelbarrows

James Cooper.....Montreal.
Rice Lewis & Son.....Toronto.

Windmills

Ontario Wind Engine and Pump Co.....Toronto.

Window Blinds

The Hudson's Bay Company.....

Wines and Liquors

The Hudson's Bay Company.....

Wire and Wire Rope

Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.
Rice Lewis & Son.....Toronto.
W. H. C. Mussen & Co.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Brass and Steel

Dominion Wire Manufacturing Co.....Montreal.

Wire Cloth

The B. Greening Co.....Hamilton, Ont.

Wire, Copper

Dominion Wire Manufacturing Co.....Montreal.
E. F. Phillips Electrical Works, Ltd.....Montreal.

Wire, Electric

Dominion Wire Manufacturing Co.....Montreal.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Goods

Dominion Wire Manufacturing Co.....Montreal.

Wire, Insulated Copper

E. F. Phillips Electrical Works, Ltd.....Montreal.

Wire, Telegraph and Telephone

Dominion Wire Manufacturing Co.....Montreal.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Transmission and Trolley

Dominion Wire Manufacturing Co.....Montreal.

Wood Screws

Dominion Wire Manufacturing Co.....Montreal.

Yachts

Polson Iron Works.....Toronto.

The act respecting and restricting Chinese immigration into Canada, passed at the current session of the Dominion Parliament, provides that vessels carrying Chinese immigrants shall not carry more than one for every 50 tons of tonnage, under a penalty of \$200 a head; and none shall come into Canada from the U.S. or any other place in excess of the number which would have been allowed to land had the vessel bringing them come direct to Canada. It is also provided that the railway companies shall be liable for the tax of \$500 a head if the conductor in charge of any train carrying Chinese immigrants shall fail to report and hand over to the proper officer any Chinese on board his train.

Port Colborne, the Canadian town at the junction of the Welland canal and Lake Erie, seems like a strange place for the establishment of a steel plant, and yet if the United States Steel Corporation must go to Canada with new works in order to obtain and hold trade in Canada and Great Britain, Port Colborne may present as many advantages as any other place in Canada. Ore and coal can be assembled there very cheaply by lake vessels, and vessels trading down the St. Lawrence to tidewater could also load or unload at the very doors of furnaces or mills. —Marine Review.

The American Railway Engineering and Maintenance of Way Association has published, in pamphlet form, the specifications for material and workmanship for steel structures adopted at its last annual convention. Copies of the pamphlet may be obtained from the Secretary, 1562 Monadnock Block, Chicago, Ill.

In a recent discussion on a railway bill in the House of Commons, Hon. A. G. Blair, then Minister of Railway, stated that the Government would, next session, decline to approve of a clause in railway bills sanctioning a sale to other companies. The object is to do away with obtaining of charters for purely speculative purposes.

The G.T.R. has announced that early in August it will commence running trains into St. Louis, Mo., over its own line by means of the recently acquired Detroit and Toledo Shore line. The line will be operated jointly by the G.T.R. and the Toledo, St. Louis and Western Ry., under a separate board of directors.

The Montreal Street Ry. recently made arrangements for the operation of observation cars over their lines, for the convenience of tourists, and sightseers. The cabmen objected and applied to the courts for an injunction to restrain the M. S. Ry. Co. from operating the cars. The application was refused.

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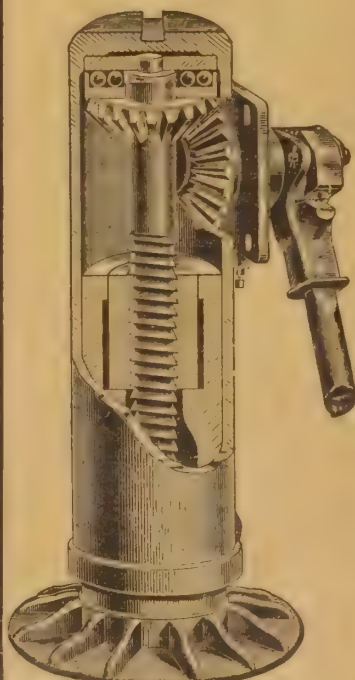
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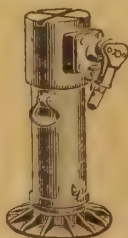
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G.T.R. Locomotive History.

In its 50 years' existence, the G.T.R. has, in common with its contemporary lines, seen many changes in ideals and methods, but in none more than its locomotives. The original prospectus of the G.T.R. was issued in 1853. Its object was the construction or formation of "a Main Trunk Line of Railway throughout the province," of 5½ ft. gauge, and embracing the lines then completed, or under construction, which included "the G.T. Ry. Co., of Canada East; the Quebec and Richmond Ry. Co., the St. Lawrence and Atlantic Ry. Co., the Grand Junction Ry. Co., and the Toronto and Guelph Ry. Co.," and leasing in perpetuity the Atlantic and St. Lawrence Co. from its junction, near the U.S. boundary line, to Portland, Maine, a total distance of 1,112 miles, of which 250 miles were at that time open for traffic.

In 1860, when the opening of the Victoria Bridge completed the undertaking, the locomotive stock numbered 206, of which 165 were at work in Canada. These were constructed as follows: In the U.S. 72, in Canada 43, in England 50. The earliest of these was built by the Portland Co. in 1848, and weighed 52,640 lbs. Fifty locomotives sent from England were constructed on the lines of those in use upon the London and Northwestern Ry., by Peto, Brassey, Betts and Jackson, the contractors for the undertaking, at the Canada Works, Birkenhead, and delivery was made during 1854 to 1858 inclusive. Passengers by the Ottawa River Navigation Co.'s line in summer may see a unique specimen of these so-called "Birkenheads" (the last of its line), hauling the train which makes the connection between Carillon and Grenville, in good repair, and equal to years of more work at the age of half a century. The old characteristics of the engine still remain, and the railway has the original G.T. gauge of 5½ ft.

The first locomotive built in the G.T.R. shops was no. 209, designed by F. H. Trevithick, the first locomotive superintendent of the company, and nephew of the talented engineer whose name he bears. This locomotive was completed May, 1859, and was used for the transportation of freight between Montreal and Toronto. Mr. Trevithick, who, the writer believes, still resides in Cornwall, near the scenes of his great ancestor's original labours, relinquished office in 1859, in favor of his assistant, W. S. Mackenzie, who was, three years later, succeeded by the late Richard Eaton, who came from the Great Western Ry. of Canada with the late C. J. Brydges, in 1863. Mr. Eaton assumed the title of Mechanical Superintendent, and built his first G.T.R. locomotive at the Montreal shops, March, 1865. He had, however, previously constructed others at the Great Western works, Hamilton, and was the first to use steel in the construction of locomotive boilers, one of which, made of this material throughout, he built as far back as 1861.

Mr. Eaton's successor was Herbert Wallis, who took charge of the mechanical department Jan. 1, 1873. During his continuance in office up to May 1, 1896, the gauge of the G.T.R. was changed from 5½ ft. to the standard 4 ft. 8½ inch., mainly during the autumns of 1873 and 1874. During this change, urgency demanded the importation of some 160 locomotives from the U.S., of which the Manchester works contributed 61, the Baldwins 45, the Schenectady 20, the Rhode Island 15, and the Portland Co. some 20, while in Canada the Kingston works and those of the G.T.R. added their quota of new ones. These locomotives weighed 70,000 lbs. in working order, and hauled in average

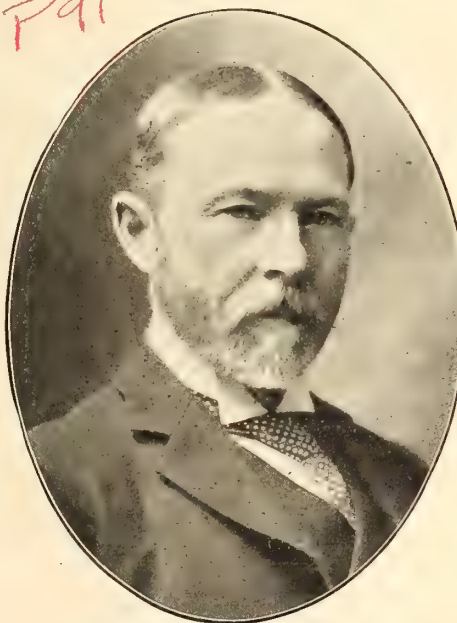
traffic, which were constantly asserting themselves in calls for heavier trains and higher speed, and to obtain which, side-tracks were lengthened, until nothing but the doubling of the main lines and the strengthening of the road and bridges gave the necessary relief.

The introduction of the Mogul type of locomotive, of which 10 were imported in 1874, permitted the utilization of a larger proportion of the total weight for adhesive purposes, and thus reduced the wear and tear of track. The driving weight was distributed over three, instead of two pairs of wheels, and thus it was possible, by the use of larger cylinders and higher steam pressure, to increase the capacity of the machines. Between 1874 and 1896, more than 170 of these locomotives were added to the G.T.R. stock, or replaced others of less capacity, and of those some 150 were constructed at the work shops at Montreal. Engine 572, built 1891, was of this type, the advantage of which lay in the fact that at little greater expenditure of fuel per ton-mile unit, trains were increased in weight to the extent of 130%.

In 1895, the G.T.R. built its first compound locomotive, which was adapted to the Mogul type. The high pressure cylinder measured 19 in., and the low, or second expansion, 29 in. in the bore. The stroke of the piston was 26 in., the initial steam pressure was 190 lbs. a square inch, and the total weight of the engine loaded was 118,412 lbs. In very carefully conducted trials between Montreal and Brockville, as between this and the then most recent example of simple Mogul type, the compound engine used 35% less coal per ton-mile unit, and its boiler evaporated 20% more water for each pound of coal consumed. The average train load (eastward and westward combined), and exclusive of the engine and tender, was equal to 1,109 tons, and this work was performed at an average speed of 21 miles an hour, with a consumption of coal at the rate of little over 1 oz. per ton per mile.

In the early days of the locomotive the train loads were under 100 tons, and the fuel consumption per ton-mile unit was about two pounds. Wood, in his treatise on railways, 1832, gives an average of 1.6 lbs. as the best English practice, after many experiments. There seems little doubt, however, that trains hauled in loads of 1,000 tons, by compound engines, can be conveyed to-day, per ton, at one-twentieth of the expenditure in coal that was common in the days of Stephenson's famous Rocket, and this, notwithstanding the additional calls upon the boiler for brake-power, increased speed, car-warming service, and the many little contrivances for the relief of the engine men and firemen.

The high and low pressure cylinders on the G.T.R. locomotives of to-day have respective diameters of 22½ and 35 ins. The stroke of the piston and diameter of the driving wheels are the same, but the steam pressure has been increased to 200 lbs. a square inch, and the total weight of locomotives in working order



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weather, at a rate of speed, without allowance of time at stations, of perhaps 10 miles an hour, between Brockville and Montreal, freight trains of 500 tons, at an average expenditure in coal of about 1½ oz. per ton per mile.

It was during 1873 that coal began to be extensively used as locomotive fuel, no wood-burning engines having been constructed for use on the G.T.R. subsequent to 1872. In the effort to produce results, the eight-wheeled road engines were notoriously over-cylindered for the weight upon the driving wheels, which was greatly restricted by the light nature of the track and bridges. In this category it was impossible, for obvious reasons, to keep pace with the growing requirements of the

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THE RAILWAY AND SHIPPING WORLD,
Toronto.

G.T.R. Locomotive History.

(Continued from page 293.)

has risen to 163,704 lbs. The haulage capa-
city of these locomotives between Montreal
and Brockville is a train of 1,500 tons going
westward, and of 2,000 tons going eastward.

The Morse passenger locomotive remains
of the single expansion design, but, as in the
case of the freight, it is of greatly increased
capacity, and an additional pair of driving
wheels has been introduced, constituting it a
"ten-wheeler." The essential differences
may be seen from the tabulated statement,
from which it may be calculated that the in-
crease in power amounts to something over
50% in the case of the G.T.R. passenger loco-
motives of to-day, and, what is of very great
importance, the steaming power of the boilers
has been more than proportionately improved
by a very liberal increase of heating surface
and grate area.

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	No. 93.	No. 989.
	1881.	1902.
Diameter of cylinders, ins.....	18	20
Length of stroke, ins.....	26	26
Number of wheels.....	8	10
Number of driving wheels.....	4	6
Diameter of driving wheels, ft.....	6½	6
Total weight of engine, lbs.....	96,000	177,772
Initial steam pressure, lbs. a sq. in.....	160	200
Fire grate area, sq. ft.....	17¾	33½
Total heating surface, sq. ft.....	1,304	2,460

Twenty-five years ago the G.T.R. Co. of
Canada owned 444 locomotives, of which 67
were passenger, 359 freight, and 8 shunting.
Of these the largest has 18 by 26 inch cylin-
ders, and weighed 160,000 lbs. Now the
G.T.R. System (which comprises the G.T.R.
of Canada, G. T. Western, Detroit, Grand
Haven and Milwaukee, Cincinnati, Saginaw
and Mackinaw, St. Clair Tunnel, Toledo,
Saginaw and Muskegon), possesses 983 loco-
motives, 243 passenger, 652 freight, and 88
switching, the heaviest locomotive and tender
being a 20 by 26 in. ten-wheeler, weighing
308,628 lbs. These engines are fitted with all
modern appliances, such as high speed air
brake, air signalling, steam heat, and carry a
pressure of 200 lbs. a square inch.—Montreal
Star.

The C.P.R. Land Grant.

The Ottawa correspondent of the Globe states that an agreement has been reached between the C.P.R. management and the Dominion Government respecting the land grant of the company.

Under the contract of 1880 the land grant awarded to the C.P.R. amounted to 25,000,000 acres. The grant was to be made in alternate sections of 640 acres, extending back 24 miles on each side of the line from Winnipeg to the summit of the mountains. The odd-numbered sections were the ones set apart for the company. In order to make good the deficiencies in the 48-mile belt, tracts of land elsewhere were also reserved. In 1886 the company's land grant was reduced by 6,793,014 acres in consideration of the extinguishment of the balance of a loan made

being the Dauphin reserve in 1895, and all the odd-numbered sections at the disposal of the Government at the date of the reservation in these several tracts have been set apart down to the present time for the purpose of providing for the company's land grants. In 1889 the company undertook the construction of what was known as the Souris branch, and were authorized by Parliament to receive a land subsidy of 6,400 acres per mile for the same. This line runs from Brandon southwesterly to Estevan, with branches easterly to Glenboro and Deloraine. By the construction of this line and the branches mentioned, the company earned a total land subsidy of 1,408,704 acres. The same terms applied to this grant as to the grant for the main line, viz., that it was to be fairly fit for settlement. Land for the purpose of meeting this grant was reserved in the vicinity of Battleford,

rejection to Glenboro and Carman, and from Manitou to Deloraine. The section connecting Carman and Manitou was never built. For the construction of this line 1,396,800 acres, fairly fit for settlement, was earned. In satisfaction of this grant three reservations were made. The first was known as the international boundary reserve. It comprises about 160 townships, and extends along the international boundary, partly in Manitoba and partly in eastern Assiniboia. A second reserve, comprising about 50 townships, was made near Lethbridge, and a third reserve north of Battleford and adjoining the Souris branch reserve already spoken of. Some years ago the C.P.R. acquired the Manitoba Northwestern Ry., extending from Portage la Prairie northwesterly to Yorkton, with a branch line to Russell, but not the land grant, and also the Saskatchewan and Western Ry.,



AN EARLY TYPE OF GRAND TRUNK RAILWAY LOCOMOTIVE.

by the Government to the company, the settlement being upon the basis of \$1.50 per acre. After this reduction the net amount to which the company were entitled under the contract was 18,206,986 acres. The other reserves made, out of which the company were to choose the land grant, consisted of the odd sections in the track south of the 48-mile belt in Manitoba and Assiniboia, as far west as the Coteau de Missonir. Then there was what is known as the first and second northern blocks. The first of these extended from about 70 miles north of Calgary to about 30 miles north of Edmonton, having a width of 250 miles east and west. The second northern block was situated north of the first, and had a width of about 70 by 160 miles. There was also a reserve of about 50 miles square in the Lake Dauphin district. The reservation of these lands was made from time to time by the Government, the last one

being two strips of 12 miles wide, each running parallel to the Saskatchewan and northwesterly from near Saskatoon to the 4th meridian. Reservation was also made of a triangular block adjoining the strip, in all about 2,000,000 acres. The company were further empowered to receive 6,400 acres per mile of lands fairly fit for settlement, for the construction of what has been styled "the Pipestone extension of the Souris branch," running from Monteith Junction westerly to a distance of about 30 miles. The area earned by the building of this line was 200,328 acres. To satisfy this grant a reserve about 30 miles north of Battleford was created, comprising the odd sections in a block of 21 townships. When the C.P.R. acquired the Manitoba and Southwestern Ry. many years ago, they also became possessed of the land grant which had been voted to the latter company. The line extends from Winnipeg in a southwesterly di-

a part of the same system, connecting Minnedosa and Rapid City, a distance of about 15 miles. This latter line earned a land grant of 98,880 acres by its construction, which likewise fell into the possession of the C.P.R. The company have, therefore, earned for the main line and Pipestone and Souris branches a total of 19,816,010 acres, and for the Manitoba Southwestern Ry., and the Saskatchewan and Western Ry., 1,495,680 acres, a grand total of 21,311,690 acres.

The C.P.R. has frequently urged that there was not sufficient land of a quality fairly fit for settlement in the reserves that have been enumerated above to allow of the selection therein of the total to which it was entitled. A great many propositions and counter propositions have been made, extending over a period of twelve or fourteen years, but nothing came of them. Within the last year, as the result of elaborate surveys made by the Gov-

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturer of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

ernment for the purpose of acquiring information as to irrigation, and in consequence of a report by Mr. Anderson, a United States expert, regarding the feasibility of irrigation, the C.P.R. has revived a former scheme of carrying out irrigation works on a large scale, and the present arrangement with the Government for obtaining over 3,000,000 acres of semi-arid lands is the result. The arrangement, says the Globe correspondent, will place at the disposal of the Government for other purposes over 10,000,000 acres of land which had been held in reserve. The land chosen by the C.P.R. under the agreement is situated in what is known as the semi-arid belt, lying alongside of the main line of the C.P.R., and consists of about 2,950,000 acres. The company also propose to take on account of their land grants another tract of about 100,000 acres of semi-arid lands adjoining the irrigation tract of the Alberta Ry. & Coal Co. The tract along the main line of the company, as now decided upon, is about 150 miles long by 50 miles in width, extending eastwardly from Calgary to Langevin station, and being bounded on the north and south by the Red Deer and Bow Rivers respectively. The residue of land still remaining to the company consists of about 500,000 acres, which, it is said, they are prepared to select from a reserve lying along the proposed line of the Manitoba & Northwestern Ry. from the vicinity of Yorkton to Prince Albert. This reservation was made to satisfy the land grant of the company just referred to, but the grant was not earned further than to the extent of the construction of a line to Yorkton within the time limit set by Parliament. The balance, therefore, remains at the disposal of the Government, and it is a striking proof of the rise of land values in the Northwest that the C.P.R. is willing to take their balance of 500,000 acres from the reserve that was gone over by the Manitoba & Northwestern Ry. Co.

The G.T.R. in Toronto

In connection with the present extensive additions to the G.T.R. yard facilities in Toronto the following extract from the Globe of June 30, 1893, will be of interest: "We are informed that the Grand Trunk Railway people have bought some eighteen acres of land in the eastern part of the city for the establishment of their terminus. The ground lies a little below Gooderham & Worts' mill, and has been in part occupied as a brick field by Mr. Barnes. It lies very low, being sometimes covered with water. The price is £1,800, which has been paid to several different owners. The land has been bought with a view to the road running along the Esplanade, which is to be built in front of the city. The company's agents wish the corporation to give them forty feet wide along the front without payment, insinuating that if their claim is refused they will make a route through the city, entering near St. James' Cemetery. The city authorities acknowledge the advantage of the railways passing along the Esplanade; but they think that the company should pay as much to them for the right of way as they would pay for another track—a just and proper stipulation, to which we are sure the company will assent. In that case there will probably be machine shops and other works on the land just bought at the east, a passenger terminus near the centre, and the freight depot at the Queen's Wharf."

Actions are threatened by Boston owners of timber limits in the State of Maine, against the G.T.R. for damages caused to the limits by reason of bush fires. It is alleged that the fires were caused by sparks from the company's locomotives. The damages are put at \$250,000.

A Telegraph-Telephone System.

The G.T.R. has installed a system of telegraphing and telephoning over the same wire at Brockville, Ont., and connections are being made so that the system can be utilized as far as Montreal. The system has been installed under the superintendence of W. W. Ashald, who has charge of the telegraph service on the system. The new departure is the outcome of a desire for more direct communication between division officers and yard officers. It moreover enables the superintendents, train masters, and chief dispatchers to communicate quickly in cases of emergency with the officers on the line. The yard officers have to deal with the direct movement and make-up of trains. A system of this kind expedites the general work, but it is not used for the actual working of the trains except in cases of emergency. The system is described as a composite circuit, which means that the telephone is installed on a telegraph wire through a method of bridging the telegraph in such a way that the telephone does not interfere with the telegraph nor the telegraph with the telephone. Those familiar with the working of electrical instruments will not require to be told that the telephone circuit requires but a low voltage as compared with the telegraph, and that when an operator opens the key to transmit a message he does so by breaking the circuit. The telephone message is transmitted on the telegraph wire without breaking the telegraph circuit at all. It is, in fact, a phantom circuit operated entirely independent of the telegraph circuit, although over the same wire. It is one more exemplification of the wonderful uses to which the mysterious power of electricity can be put. Mr. Ashald said that at present the company had installed an instrument in the dispatching office at Montreal, one at Vaudreuil, one at Cornwall and one at Brockville. There is practically no limit to the number of instruments that can be set up as occasion requires. At present the installation is merely experimental, the idea being later on to extend the application of the principle over the whole system, so far at least as the local districts are concerned. It is not intended that it shall take the place of the long distance telephone as a means of communication between the officers over the entire system.

Cartage Rates on Freight.

As the result of a conference between the freight traffic managers of the C.P.R., the G.T.R. and the Canada Atlantic Ry., the following resolution has been passed:—"That the cartage arrangement as in effect at cartage points on lines east of Fort William, which provides at present for the collection on inward and outward cartage freight of a rate in addition to the freight charges when cartage is performed of 1 1/4 cents per 100 pounds on freight classifying first to fourth, one cent. on fifth class, minimum charge ten cents, in addition to the railway companies' rates, be increased to 1 1/2 cents per 100 pounds, on classes first to fifth, inclusive, minimum 15 cents, and that the additional charge of two cents per 100 pounds now charged on freight classifying sixth to tenth, inclusive, when the cartage is undertaken or performed by the railway companies' charge agents, be increased to 2 1/2 cents per 100 pounds."

The Niagara Navigation Co. was presented with a flag by Sir Thos. Lipton on the occasion of his recent trip to Niagara-on-the-Lake. The flag consists of a shamrock on an orange field, with a green border.

The Kingston, Portsmouth and Cataraqui Ry. Co. has decided to operate its cars in Kingston on Sundays.

Railway Freight Classification.

The acting Minister of Railways, Hon. W. S. Fielding, has decided that the changes made by railways in classifying freight rates since May 1, not having been approved by the Governor-in-Council, are inoperative. This action was taken on the complaint of the Canadian Manufacturers' Association, and was argued before the acting Minister July 29, when the points raised on behalf of the manufacturers and the railway companies were given due consideration. The manufacturers assert that they are entitled to a refund of the charges paid under the classification objected to, and press reports state they will claim the excess over the charges under the old classification from the railway companies.

Consolidated Lake Superior Co.

Notices have been sent to the shareholders inviting them to take up \$12,500,000 of new 30-year 4% collateral trust bonds. These are offered to subscribers at 60, and subscriptions will be received at the rate of \$1,000 of bonds for each eighty shares of common and preferred stock. The proceeds will be used in connection with the payment of a loan of \$5,050,000 negotiated with Speyer & Co., and \$2,450,000 for the discharge of current indebtedness, chiefly on construction accounts and for working capital. The circular to the stockholders reads in part as follows: "These bonds will be secured by the stocks of all subsidiary companies of the Consolidated Lake Superior Co. and by mortgage bonds of these subsidiary companies. The property thus pledged as collateral represents a cash investment of more than \$25,000,000 in completing undertakings that are now either operating profitably or are ready for operation. Stockholders will have the right to subscribe for these bonds in the proportion of \$1,000 of bonds for each eighty shares of either common or preferred stock, payment for the bonds to be made at the rate of \$600 for each bond of \$1,000. Negotiable warrants specifying the amount of bonds to which each stockholder will be entitled to subscribe will be mailed to stockholders of record at the close of business on July 20, 1903. Warrants for less than eighty shares may be combined to make the amounts required for subscription to even amount of bonds. Subscription for bonds will be received on behalf of the company from July 21 until and including Aug. 10, 1903, by the Commercial Trust Co., Philadelphia; Morton Trust Co., New York city; National Trust Co., Ltd., Toronto. Terms of payment for the bonds will be as follows: Twenty-five per cent. upon subscription, 25 per cent. on Sept. 1, 1903, and 50 per cent. on Sept. 15, 1903. Negotiable receipts will be issued for payments pending the delivery of the bonds. Such bonds as shall not have been subscribed for by stockholders on Aug. 10, 1903, will be disposed of otherwise by the board of directors; but not at a price lower than that at which they are offered to the stockholders. The proceeds of the sale of the present issue of \$12,500,000 of bonds will be used as follows: For repayment of temporary loans, \$5,050,000; for the discharge of current indebtedness, chiefly on construction accounts, and for working capital, \$2,450,000; total, \$7,500,000. The estimated net earnings of the company for the year beginning July 1, 1903, figured upon a most conservative basis, will amount to more than \$900,000, while the interest on the present issue of bonds will be only \$500,000."

A further circular has been issued stating that while a considerable portion of the issue has been subscribed, it is essential that the whole issue be taken up, or the company must pass into the hands of the creditors, Phila-

delphia financial institutions which are participants in the \$5,050,000 overdue syndicate loan to the company have generally agreed to a proposition made by President Shields with regard to the new bond issue. The pro-

position is for the several institutions, firms and individuals who made the loan to take new bonds at 60 to an amount equal to the loan, with the proviso that the company shall bind itself to take back the bonds after two

years should the holders so elect. That would be equivalent to an extension of the loan for two years on security for the bonds.

The time for receiving subscriptions was

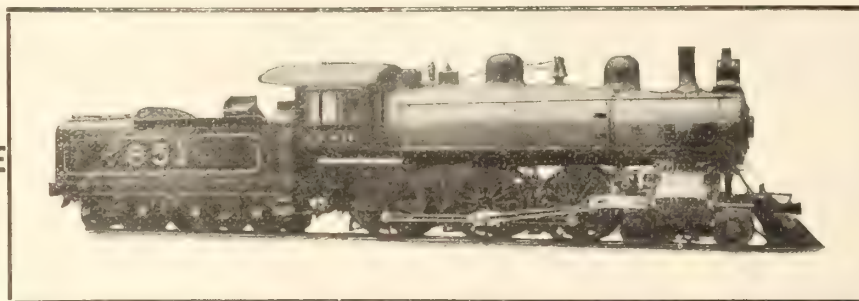
American Locomotive Company

BUILDERS OF LOCOMOTIVES FOR ALL CLASSES OF SERVICE.

President, S. R. CALLAWAY.
Vice-President, A. J. PITKIN.

Secretary, LEIGH BEST.
Second Vice-President, R. J. GROSS.

Treasurer, C. B. DENNY.
Mech. Engr., J. E. SAGUE.

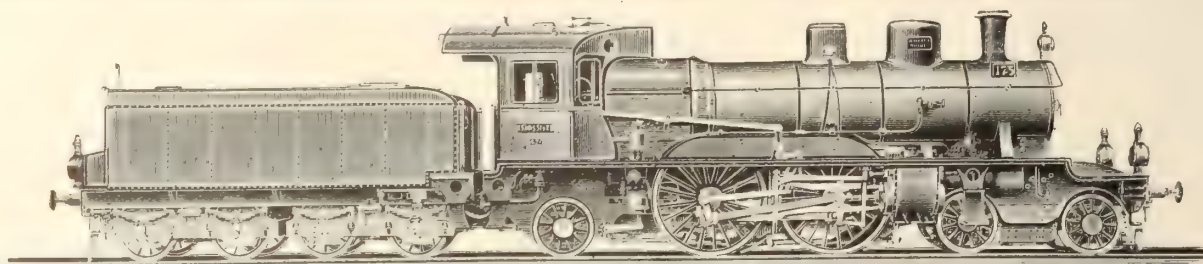


SCHENECTADY WORKS, Schenectady, N. Y.
BROOKS WORKS, Dunkirk, N. Y.
PITTSBURG WORKS, Allegheny, Pa.
RICHMOND WORKS, Richmond, Va.

COOKE WORKS, Paterson, N. J.
RHODE ISLAND WORKS, Providence, R. I.
DICKSON WORKS, Scranton, Pa.
MANCHESTER WORKS, Manchester, N. H.

GENERAL OFFICE

25 Broad Street, NEW YORK CITY.

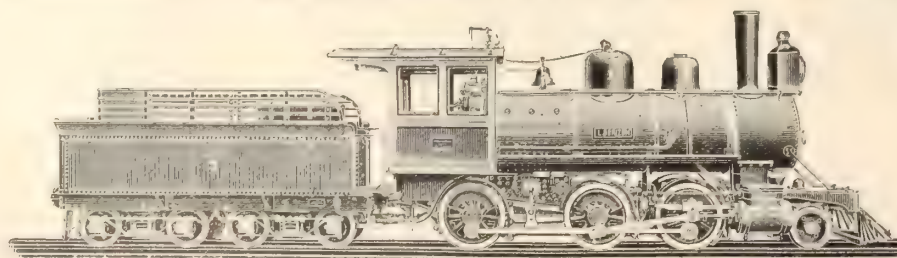


The Saxon Engine Works, late Rich. Hartmann, Limited

CHEMNITZ (Germany),

Carry on the construction of **LOCOMOTIVES** of every description.

Number
of
Workmen,
5,200.



Capital,
\$3,000,000.

extended to Aug. 25, and press reports were current during the earlier portion of the month to the effect that a Philadelphia syndicate had been organized to take up the bonds, but C. Shields, President, denied this, stating that the shareholders must come forward and protect their property. The company's employees are reported to have subscribed for a considerable sum, and to have expressed a desire to accept part of their salaries in bonds. A circular issued gives the following particulars respecting the number of men employed and the operation of the several subsidiary companies:

The Algoma Central Ry., in full operation for over 60 miles.

The Algoma Central Steamship lines are in full operation.

The two street railway lines, the International Transit Co. and the Trans-St. Mary's Ry. Co., and ferry boats are each carrying between 2,500 and 3,500 people daily.

The Algoma Central Ry. car shops are turning out eight cars per day for the Canadian Pacific Railway.

The rail mill, Bessemer converters and blast furnaces are in readiness to make iron and roll rails as soon as iron ore and coke are received.

The ground wood pulp mill is turning out 70 tons of pulp per day, while the sulphite mill is turning out 40 tons per day.

The Algoma iron works and machine shop employ 185 men per day.

The Algoma Electro Chemical Works are producing 3 tons caustic soda and 7 tons bleaching powder daily.

The Sault sawmill is turning out 105,000 ft. of lumber and 25,000 laths daily.

The veneer mill is turning out 30,000 sq. ft. of veneer per day.

The Goulais sawmill is manufacturing 70,000 shingles and 20,000 laths per day.

The brick plant is turning out 16,000 pressed brick daily.

The company has 2,000 men in the woods cutting veneer, logs, pulp, charcoal, wood and sawlogs.

Fourteen hundred tons of iron ore are being taken from the Helen mine each day.

Fifty-eight men are employed at the Grace gold mine, and sixty men at the Gertrude nickel mine.

One hundred and twenty-five men are employed daily on the fore bay of the power canal of the Michigan Lake Superior Power Co., which will be completed not later than Aug. 15.

The Tagona Water & Light Co. is in full operation, supplying water and light in the Canadian Sault, constantly employing fifty men, laying water mains, etc.

The retort plant manufactures 6,000 bu. of charcoal, 10 tons of acetate of lime, 1,500 gallons of wood alcohol per day, and employs eighty men.

Construction on the copper-nickel converter plant, intended to smelt 300 tons of nickel-copper ore per day, it being pushed by a gang of thirty men, and the plant is expected to be ready for operation by Sept. 5.

The Wire and Cable Co. is erecting additional buildings upon its property on St. James, Lusignan and Guy streets, Montreal. The new buildings will occupy an area of 30,000 square ft., so that the company's buildings will cover in all 70,000 square ft. The two largest buildings that will be erected on the property just secured will be the cable works, which will be situated at the corner of Guy and St. James streets, and which will be four storey buildings. The wire works, which will be situated at the corner of Lusignan and St. James streets, will be a two storey building and will have a capacity of 25,000 pounds a day. The new buildings will be completed by the end of the year.

RAILWAY FINANCE, MEETINGS, ETC.

Atlantic and Lake Superior Ry.—The Supreme Court at Ottawa has reserved judgment in the case of the A. and L. S. Ry. Co. against Veilleux. Respondent, plaintiff, sued for the price of a quantity of piles delivered to the company at Levis, Que., and recovered \$26,521.48 with interest in the trial court at Quebec. The appeal is from the King's Bench judgment affirming this judgment to the extent of \$26,221.48. The company claims that the contract was not fulfilled by delivery of piles suitable for the construction of the Paspebiac wharf, that the piles sent by plaintiff were refused, the contract repudiated, and a new contract made with other contractors for a supply of proper piles. The questions raised on the present appeal involve also objections to the regularity and fairness of the procedure of the trial. (June, pg. 189.)

Bangor and Aroostook Ry.—The Maine Railroad Commission has approved of the proposed increase of \$500,000 in the capital stock of the company. The increase is for the purpose of purchasing the 50 mile line from Ashland to Fort Kent, Me., now leased. Fort Kent is on the St. John river opposite Clairs, N.B., on the St. Francis branch of the Temiscouata Ry.

Berlin and Waterloo Street Ry. Co.—The head office of this company has been changed by resolution from Waterloo to Berlin, Ont.

British Columbia Electric Ry. Co.—Earnings and expenses for June:—

GROSS EARNINGS.	1902.	1903.	Increase or Decrease.
Railway—Vancouver division	\$12,432	\$16,742	\$4,310+
Victoria	9,396	10,476	1,080+
Westminster	8,362	10,862	2,500+
Lighting—Vancouver division	9,801	13,647	3,846+
Victoria	4,621	5,710	1,089+
	44,612	57,437	12,825+
Less working expenses	27,676	31,922	4,246+
	16,936	25,515	8,579+
Renewal funds	3,458	4,222	764+
Net income	13,478	21,293	7,815+
Aggregate gross earnings, July 1, 1902, to June 30, 1903	\$77,165	673,882	95,717+
Aggregate net earnings, July 1, 1902, to June 30, 1903	\$185,175	\$224,347	\$39,172+

Calgary and Edmonton Ry.—Net earnings for June \$17,583.24, against \$18,426.43 for June, 1902, making for six months ended June 30 \$146,424.78, against \$150,222.93 for same period 1902.

A special meeting of the shareholders was held in Toronto, Aug. 4, sanctioning the issue of debenture stock to the amount of \$1,121,700, to be issued to the bondholders in Great Britain, in pursuance of the agreement made. In connection with this agreement H. Moody, deputy Secretary and Registrar of transfers, C.P.R., London, Eng., recently issued the following circular to the bondholders of the C. and E. Ry. in Great Britain: "As I hope to receive at the end of this month (July) the first instalment of certificates of the 4 per cent. debenture stock of the above railway, and shall in that case commence the issue of them soon after that date, I am prepared now to receive at this office certificates of the Bondholders' Committee, interim certificates, and unpaid interest scrip, which will in due course be exchanged for definite debenture stock certificates in the order in which those documents have severally been deposited with me. Forms for listing such certificates and for specifying names and addresses into which the new stock is to be registered can be obtained at this office. Claims for the July in-

terest, where such has not been already claimed, can be lodged at the same time."

The Judicial Committee of the Privy Council, at a recent sitting in London, Eng., granted the C. and E. Ry. Co. and the C. and E. Land Co. leave to appeal from a judgment of the Supreme Court of Canada, in an action by these two companies against the Crown. The circumstances attending the bringing of the action show that the C. and E. Ry. Co. was incorporated by an act passed in April, 1890, for the purpose of laying out, constructing, and operating a railway from a point on the C.P.R. at Calgary, Alta., to a point at or near Edmonton, with power to extend southerly to the International Boundary between Canada and the United States, and northerly to the Peace river. The Calgary and Edmonton Land Company, Limited, is a company incorporated under the English Joint Stock Companies' Act for the purpose, amongst others, of buying, selling, and dealing in lands in Canada, and has an interest in the lands referred to in this case. By an Act 53 Vict., c. 4, and certain Orders-in-Council the Crown agreed to make a free grant of Dominion lands to the C. and E. Ry. Co. at the rate of 6,400 acres per mile of the line from Calgary to certain points upon conditions, and, with the exception of these conditions, the grants were to be free grants. The C. and E. Ry. Co. requested the Government to issue a patent in respect to part of the lands without any reservation of minerals. The Government declined to issue the patent except with that reservation. The ground for the Government's declining to issue the patent except with that reservation was that regulations passed under section 47 of the Dominion Lands Act, 49 Vict., c. 54, R.S.C., 1886, as amended by 55-56 Vict., c. 15, section 5, reserving all minerals to the Crown, governed the patents to be issued for the railway company's land grant. The petitioners presented a petition of right asking that the patent and all future patents for land earned by the company should be free from any reservation of mines or minerals in the lands therein contained. The petition of right was heard before the Exchequer Court of Canada, which decided that the petitioners were not entitled to the relief sought by the petition of right. From that decision the petitioners appealed to the Supreme Court of Canada, which dismissed the appeal, with costs, the judges being equally divided. The petitioners contended that the conditions and reservations contained in the general Orders-in-Council made with respect to Dominion lands generally prior to the act which empowered the grant of 6,400 acres of land per mile to be made to the railway company had no application to the lands to which the petitioners were entitled, and that they were entitled to have a patent issued for the land free from any reservations of mines or minerals. The petitioners also contended that they were entitled to a declaration that in all future patents for lands earned by the railway company the patents should be free from that reservation, and that any patents already issued should be rectified by striking out that reservation.

Canada Southern Ry.—Notice is given that the C.S. Ry. Co. and the Michigan Central Rd. Co. will apply to the Minister of Railways and Canals at Ottawa, Oct. 5, for the sanction of the Governor-in-Council to the agreement, sanctioned by the shareholders of both companies, leasing the line of the C.S. Ry. Co. to the M.C. Rd. Co.

Canadian Northern Ry.—Approximate earnings for July, \$254,800, against \$132,300 for July, 1902. Mileage in operation, 1,277, an increase of 32 miles compared with July, 1902.

Canadian Pacific Ry.—At the regular meeting of the directors held Aug. 10, it was decided to declare a dividend for the half-year ended June 30, at the rate of 3%. Hith-

erto the dividend has been at the rate of 2½ per cent. each half-year, or 5% a year. The results for the fiscal year to June 30, were:—Gross earnings, \$43,957,373; working expenses, \$28,120,527; net earnings, \$15,836,845; income from other sources, \$1,286,812; total net income, \$17,123,658; less fixed charges, \$7,052,197; less amount applied against ocean steamships, \$150,000; net revenue available for dividends, \$9,921,460. After payment of all dividends declared, the surplus for the year carried forward is \$3,973,960. The following additional directors were elected: Hon. R. Mackay, Hon. G. A. Drummond, R. G. Reid, D. McNicoll, of Montreal; and C. W. Mackay, of New York. Of the new directors D. McNicoll is 2nd Vice-President and General Manager of the Co.; R. G. Reid is President of the Reid Newfoundland Co., and C. W. Mackay is son of the late J. W. Mackay, of New York, who was a director of the Company. These increase the number of directors to 14, the maximum number authorized by the company's acts, and of these a certain proportion are to retire annually, but are eligible for re-election. C. R. Hosmer was the only new director added to the

board from the date of the death of Sir John Abbott until the present election.

It is reported that a new issue of bonds will be made in connection with the final absorption of the Kingston and Pembroke Ry., and the Ottawa, Northern and Western Ry. At present these lines are operated as separate companies under C.P.R. control. The understanding is that as soon as the expenditure on improvements is completed the bonded indebtedness will be rearranged and replaced with C.P.R. bonds, the several companies losing their identity.

Grand Trunk Ry.—A special meeting of the shareholders was called to be held in London, Eng., Aug. 24, for the purpose of assenting to the G.T. Ry. Act of 1903, as required by the sixth section of the act. This act authorizes the issue of additional 4% guaranteed stock to such an amount as will, with similar stock already issued, make a total not exceeding £10,000,000. The shareholders will also be asked to authorize the issue of the additional guaranteed stock authorized.

Grand Valley Ry.—The annual meeting of the shareholders will be held in Brant-

ford, Ont., Sept. 2. A section of the company's line from Brantford to Paris, has been in operation during a portion of the year.

Great Northern Ry. of Canada.—The differences between the G.N. Ry. and the Quebec city council as to the payment of taxes on the elevator and the company's offices have been arranged. The city claimed \$13,097, but the company contended that the elevator was exempt from all but school taxes and water charges. The company has paid the latter taxes, and the question of charging general taxes on the elevator is held in abeyance.

Great Northwest Central Ry.—In connection with the claims which J. A. Codd is making in the English courts against the G.N.C. Ry. Co., whose line in Manitoba forms part of the C.P.R., the Ontario courts have, at the instance of J. P. Thomas, of Belleville, appointed a Receiver. Mr. Thomas has a claim against Mr. Codd, and is taking this method of securing himself in the event of the claim in English court being successful.

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Wheel and Drag Scrapers.	A complete range of supplies always in stock for immediate shipment. W. H. C. MUSSEN & CO. MONTREAL, QUE.	Wheel Barrows.

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Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$ 102.75+
Feb.....	9,321.75	8,498.39	823.36+
Mar.....	10,195.12	9,761.57	433.55+
April.....	10,532.55	10,025.66	506.89+
May.....	10,768.11	11,126.66	358.55-
June.....	11,843.82	11,528.19	315.63+
July.....	15,942.37	14,834.69	1,107.68+
	\$79,471.05	\$76,539.74	\$2,931.31+

Hull Electric Ry.—Negotiations are reported to be in progress between the C.P.R. and the Ottawa Electric Ry. Co. for the sale to the latter of the Hull Electric Ry. This line was part of the lines acquired when the C.P.R. purchased the Ottawa, Northern and Western Ry., the Pontiac and Pacific Jct. Ry. and the Interprovincial Bridge.

Intercolonial Ry.—Gross earnings for the year ending June 30, amounted to \$6,324,327, and the working expenses to \$6,196,150, or a surplus of \$128,177. In 1896 the receipts amounted to \$2,994,202.93. During 1902 the gross receipts were \$5,671,385, and working expenses \$5,574,563, leaving a surplus of \$96,822.

Kingston and Pembroke Ry.—At the half-yearly meeting of directors held Aug. 12, W. D. Matthews, of Toronto, was elected President, succeeding H. Folger, resigned.

Kingston, Portsmouth and Cataract Electric Ry. Co.—Notice was recently given that the company deposited in the office of the Provincial Secretary, Toronto, Jan. 18, 1897, a mortgage dated Sept. 5, 1895, from the company to Robert Vashon Rogers, Trustee, to secure its bonds and debentures.

Lake Erie and Detroit River Ry.—The shareholders have approved of the additional mortgage deed to the National Trust Co. (Ltd.), Toronto, to secure an authorized issue of \$5,000,000 of bonds. The deed is in addition to, and in amendment and modification of, a mortgage given Aug. 1, 1902. (Aug., pg. 263.)

Montreal Street Ry.—It is reported that the company will shortly issue an additional \$1,000,000 of new stock, for the purpose of constructing additional lines and making further improvements. The company is authorized to issue \$10,000,000 of capital stock, of which \$6,000,000 has already been issued and is fully paid up. F. L. Wanklyn, General Manager, says the report is not official, as he knows nothing about it.

Earnings and expenses for July:

	1903.	1902.	Increase or Decrease.
Passenger earnings.....	\$212,337.07	\$194,194.35	\$18,142.72+
Miscellaneous earnings.....	3,899.75	4,461.97	562.22-
Total earnings.....	216,236.82	198,656.32	17,580.50+
Operating expenses.....	116,157.47	93,966.90	22,190.57+
Net earnings.....	100,079.35	104,689.42	4,610.07-
Fixed charges.....	24,696.19	19,929.76	4,766.43+
Surplus.....	75,383.16	84,759.66	9,376.50-
Expenses % of car earnings.....	54.70	48.39	

From Oct. 1, 1902, to July 31, 1903:

	1902-3.	1901-2.	Increase or Decrease.
Passenger earnings.....	\$1,758,862.42	\$1,618,377.01	\$140,485.41+
Miscellaneous earnings.....	29,315.71	25,459.54	3,856.17+
Total earnings.....	1,788,178.13	1,643,836.55	144,341.58+
Operating expenses.....	1,109,809.66	940,859.81	168,949.85+
Net earnings.....	678,368.47	702,976.74	24,608.27-
Fixed charges.....	189,363.30	164,228.46	25,134.84+
Surplus.....	489,005.17	538,748.28	49,743.11-
Expenses % of car earnings.....	63.10	58.14	
Interest on M. P. & I. Ry. Co.'s bonds owned by the Co. not included.			

New Brunswick Ry.—The annual meeting was held in St. John, N.B., Aug. 6, when the following were elected: President, R. Meighan, Montreal; Vice-President, H. H.

McLean, St. John; other directors, Lord Strathcona, J. Turnbull, J. Hardisty, Montreal; J. McMillan, S. Thorne, J. S. Kennedy, New York; D. W. James, E. R. Burpee, Bangor, Me., and J. McMillan. Land Agent, W. T. Whitehead; Secretary, A. Seely.

New Brunswick and Prince Edward Island Ry. Co.—The only persons present at the annual meeting, called for Aug. 4, were Hon. J. Wood, and F. Harris, the superintendent of the line. The negotiations for the sale of the line to B. F. Pearson, of Halifax, and his associates, in the interests of the Prince Edward Island Ferry Co., are reported to have been reopened. (Aug., pg. 263.)

Northern Securities Co.—The N. S. Co. has won a victory in the United States Circuit Court at St. Paul, in the action brought by the State of Minnesota. The company was formed by J. J. Hill and other leading owners of Great Northern and Northern Pacific stock, to buy the stock of these roads and thus merge them under a single management. A federal suit was entered, with the result that the company was declared to be in violation of the Federal anti-trust law. From this decision an appeal by the company to the Supreme Court is now pending. In the meantime a suit was entered against the company by the State of Minnesota, on the ground that its course was a violation of a State law against the combining of parallel railways. The present decision is against the contention of the State, and will be appealed. It does not affect the judgment and pending appeal under the Federal anti-trust law.—Globe.

Pere Marquette Rd.—At a meeting of the stockholders in Detroit, Mich., recently held, it was decided to ratify the action of the directors and executive committee in authorizing the purchase of \$3,000,000 5% first mortgage bonds of Lake Erie and Detroit River Ry., and in authorizing the issue of \$3,000,000 4½% Pere Marquette bonds to pay for the same. The stockholders also voted to decrease the interest rate on the bonds of Detroit and Lake Erie Ry., and to approve the sale of these bonds to Robert Winthrop & Co., N. W. Harris & Co. and a syndicate with which directors of Pere Marquette Rd. are identified.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net loss for June, \$4,028.35, against net earnings of \$2,909.33 for June, 1902, making for seven months ended June 30, net earnings of \$17,269.19, against \$51,121.38 for same period 1901-02.

A report from London, Eng., recently stated: "The bondholders of the Qu'Appelle, Long Lake and Saskatchewan Ry. and Steamboat Co. are complaining that in spite of the enormous expansion in the Northwest, the company's earnings have decreased. The explanation is that the gross earnings have greatly increased, some \$33,800 in April alone; but increased wages, the improvements to the water supply and other betterments have more than consumed the earnings. The bondholders are assured that although there is no increase in interest the property is steadily being improved."

Quebec Bridge Co.—Press reports state that the Dominion Government has decided to guarantee the principle and interest of bonds to the extent of \$4,000,000 towards the completion of the bridge.

Quebec Central Ry.—Gross earnings for June, \$69,580.87; working expenses, \$47,458.58; net earnings, \$22,122.29, against \$62,143.25 gross, and \$18,883.71 net for June, 1902. Gross earnings for six months ended June 30, \$315,221.88; net earnings, \$84,160.53, against \$291,585.33 gross, and \$80,571.46 net for same period, 1902.

St. John Ry.—At a special meeting of shareholders, held in St. John, N.B., recently,

it was decided to increase the capital to \$800,000 by the issue of \$300,000 of new stock.

St. Thomas Street Ry.—The receipts from July 1 to 30, inclusive, were reported to the city council to have been \$1,903.23.

South Shore Ry. Co.—A writ of seizure after judgment has been issued at the instance of Hon. R. Prefontaine against the S. S. Ry. Co., in respect of a claim of \$22,055.55. The claim of \$22,055.55 is for the balance of the price of sale of a portion of the S. S. Ry. Co.'s property. When the Great Eastern Ry. from Sorel to Yamaska, Que., was sold some years ago, Mr. Prefontaine bought it in and afterwards sold it to the S. S. Ry. Co. The seizure is made in the hands of the National Trust Co., of Toronto, which is said to hold the debentures of the company.

Toronto, Hamilton and Buffalo Ry.—Gross earnings for July, \$48,354.54, against \$33,704.02 for July, 1902. Gross earnings for two months ended July 31, \$95,902.47, against \$69,084.93 for same period, 1902.

An act has been passed at the current session of the Dominion Parliament, authorizing the company to issue bonds or debentures to the extent of \$1,000,000 in addition to the indebtedness already authorized, and to secure the same in such manner as may be determined by the directors.

Toronto Railway Co.—Car earnings:

	1903.	1902.	Increase or Decrease
Jan.....	\$161,938.22	\$137,135.21	\$24,803.01+
Feb.....	146,539.17	127,981.01	18,558.16+
Mar.....	159,913.85	141,681.22	18,232.63+
April.....	162,276.36	132,546.56	29,729.80+
May.....	174,519.58	145,195.54	29,324.04+
June.....	177,593.21	131,865.85	45,727.36+
July.....	192,629.06	162,072.02	30,556.94+
	\$1,175,409.45	\$978,477.51	\$196,931.94+

The percentage paid to the city for July was \$23,522.59, against \$17,615.60 for July, 1902.

The City Treasurer recently presented a report to the city council on the finances for 1902, in which was the following reference to the street railway: "The revenue from the street railway amounted last year to \$235,447.21, an increase of \$22,238 over the previous year. The number of passengers carried was 44,437,678, on which the railway bases its gross earnings, amounting to \$1,834,908.37, a sum rather less than that on which the city is paid its percentage, the latter being based not on the gross earnings, but on the gross receipts for railway fares only. In 1892 the number of passengers carried by the street railway was 19,122,022. The number of transfers of passengers increased from 5,592,708 in 1892, to 15,974,220 last year. The mileage run during 1902 was 10,517,433."

Victoria Terminal Ry. Co.—F. J. Wheeler, formerly general agent of the Great Northern Ry., U.S., in Victoria, will, press reports state, bring suit against the V. T. Ry. Co. for the repayment of \$27,000 with interest, being money which he and A. E. Henry, of Milwaukee, are alleged to have put into the company in its initial stages. He will also ask, it is said, for \$50,000 promoter's fees, for his services in connection with the inauguration of the business of the new company.

White Pass and Yukon Ry.—Gross earnings for July, \$216,000.

The London, Eng., Stock Exchange Committee have granted an official quotation to £255,555 6% debentures of £100 each, Nos. 1 to 2,555, and No. 2,556 of £55, of the White Pass and Yukon Railway Co., Limited.

The St. John, N.B., Ry. Co. has abandoned the use of fare registers in its street cars, and is using the fare box exclusively. Hitherto both systems have been in use.

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C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1901-02, from July 1, 1902:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$3,246,620.51	\$2,070,909.25	\$1,175,711.25	\$79,844.32+
Aug. 3,554,184.56	2,191,283.11	1,362,901.46	57,269.36+
Sept. 3,651,481.42	2,240,726.92	1,410,754.50	58,022.78—
Oct. 4,127,402.07	2,511,267.44	1,616,134.63	149,095.41—
Nov. 3,976,068.87	2,417,828.63	1,558,240.24	117,362.10—
Dec. 3,959,146.15	2,286,704.31	1,672,441.84	103,750.33+
Jan. 3,148,455.27	2,231,684.50	916,770.77	96,309.97+
Feb. 2,827,294.65	2,084,553.96	742,740.69	68,380.01+
Mar. 3,615,752.57	2,357,188.11	1,258,564.46	203,649.50+
Apr. 3,795,394.50	2,302,221.19	1,493,173.31	201,466.68+
May 3,902,962.05	2,519,604.78	1,383,357.27	216,464.89+
June 4,152,610.42	2,906,555.06	1,246,055.36	399,318.02+

\$43,957,373.04 \$28,120,527.26 \$15,836,845.78 \$1,750,933.37+

Approximate earnings for July, \$3,914,000, against \$3,164,000 for July, 1902.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for June, \$273,093.57; net earnings, \$113,009.05, against \$253,425.02 gross and \$106,457.63 net for June, 1902. Net earnings for twelve months ended June 30, \$1,014,044.93, against \$1,001,750.98 for same period, 1901-02. Approximate earnings for July, \$257,410, against \$267,217 for July, 1902.

MINERAL RANGE RY.—Approximate earnings for July, \$48,727, against \$46,463 for July, 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for June, \$628,815.57; net earnings, \$286,617.50, against \$538,749.72 gross and \$257,204.34 net for June, 1902. Net earnings for twelve months ended June 30, \$3,517,341.65, against \$3,280,760.15 for same period 1901-2. Approximate earnings for July, \$560,472, against \$529,236 for July, 1902.

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, & the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase.	Decrease.
July.....	\$3,192,608	\$2,589,422	\$603,186	....

The following are supplied from the London, Eng., office:

Subject to audit, the accounts for the half-year to June 30, 1903, show the following results:

Gross receipts.....	£2,778,000
Working expenses, including special appropriation of £15,000 to Bridge Renewal Account.....	1,995,000
Net receipts.....	783,000
Net revenue charges for the half year, less credits.....	514,000
Balance.....	269,000
Deduct Detroit, Grand Haven and Milwaukee Ry. deficiency for the half-year.....	14,400
Surplus.....	£254,600

This surplus of £254,600 added to the balance of £4,000 from Dec., 1902, makes a total amount of £258,600 available for dividend, which will admit of the payment of the dividends for the half-year on the 4% Guaranteed Stock and First and Second Preference Stocks, leaving a balance of about £5,600 to be carried forward.

The accounts of the Grand Trunk Western Company for the year ended June 30, 1903, show a surplus sufficient to provide for the interest on the First Mortgage Bonds and leave a balance of about £3,700.

Aggregate from July 1 to July 30:

	1903.	1902.	Increase.	Decrease.
Grand Trunk....	£544,068	£437,654	£106,414	.....
G. T. Western....	91,711	74,761	16,950	.....
D. G. H. & M....	20,237	19,658	579	.....
Total.....	£656,016	£532,073	£123,943	.....

Montreal Street Ry. Pension Fund.

Early in June the directors of the Montreal Street Ry. Co. laid before its employees a proposal for the establishment of a benefit association similar to that already in force on the C.P.R. and the G.T.R. Representatives of the directors and the different sections of the employees met recently and discussed the proposal. As a result by-laws for the government of the association were adopted, and the necessary steps were taken with a view of applying for an act of incorporation at the next session of the Quebec Legislature.

The by-laws set out that the object of the association shall be: To provide allowances, medical attendance and medicine to members when incapable of following their usual or any other suitable employment in the company's service, by reason of illness or bodily injury. To provide allowances in case of death to the representatives of deceased members. To provide a pension for old and disabled members.

The funds of the association shall be derived from joint contributions of the company and the employees duly admitted as members of the association. The committee of management of the association shall take charge of the contributions and funds.

All permanent employees of the company and the Montreal Park and Island Ry. Co. up to Jan. 1, 1904, shall have the privilege of becoming members of the association, irrespective of age, on passing a satisfactory medical examination, and after Jan. 1, 1904, all new employees who shall be engaged as permanent employees on the Montreal Street Ry. or Montreal Park and Island Ry. systems and who are under 40 years of age, and have passed satisfactory examinations by the association's medical officer, shall be entitled to become members of this association, and no employee shall be admitted as a member of the association until after at least three months' probation in the company's service.

The affairs of the association shall be managed by a committee composed of five members, to be elected annually by the members of the association, and an equal number to be nominated by the board of directors of the company, and in addition the General Manager of the company shall be president and ex-officio member and chairman of the said committee. Five members of the committee of management to form a quorum.

The M.S. Ry. Co. shall contribute to the funds of the association a sum annually not less than 50%, or such larger amount not exceeding 100%, of the annual contributions of the members, as the directors of the company may from time to time elect.

The company will also, as an additional contribution, furnish necessary office accommodation, and defray all other expenses of management of the association.

Each member shall contribute 50c. per month, to be deducted from his wages. In addition, all applicants for membership shall, as an admission fee, on acceptance, pay the sum of \$1, to be deducted from the first wages accruing after date of admission to the association; the admission fee to include all expenses of medical examination.

Every member leaving the company's service after the age of 65 years, and having been in the said service for a period of 25 years, shall become entitled to a pension of 50c. per diem during the remainder of his life, provided that if the employee temporarily at any time thereafter shall return to or engage in any other work at a rate of daily wages exceeding 50c. as aforesaid, the payment of the pension shall be suspended during the continuance of such re-employment.

On the death of a member from whatever cause, except as provided for in clause 7, the sum of \$500 shall be paid to his widow, or

failing the widow, then to his child, or children in equal shares, or if unmarried, then to his legal heirs, and \$50 towards his funeral expenses, provided that any member may, if he so desires, assign his assurance in any other manner by the registration of such assignment with the secretary-treasurer of the association, and may cancel and change such assignment at any time thereafter at will, providing all such assignments or re-assignments are properly dated and signed before at least two subscribing witnesses, one of which must be an officer of the association, and duly registered in the office of the secretary-treasurer of the association.

Canadian Ticket Agents' Association.

E. De La Hooke, Secretary-Treasurer, issued a circular to members, Aug. 19, from which the following extracts are made: The several railway companies having again consented to grant the privileges of their lines to members and their wives on their way to and from the place of meeting, members will have the choice of any of the direct lines to Montreal, and on their making known, in manner appointed, the transportation required, it will be supplied. The Richelieu and Ontario Navigation Co. also extend the courtesies of the steamers of their several lines, a charge being made for meals and berths only. It will be arranged that the same sleeping-cars will go the round trip, and that the one payment to cover the whole journey for accommodation occupied will be collected at start. It is computed that the cost will be as follows: berth, \$5; section, \$10; drawing room, \$15. Meals will be served in dining-cars at a uniform rate of 50c. To the Secretary has again been assigned the duty of allotting space in the sleepers. He will, as on the last occasion, do his best to please as many as possible, preference being given to married-couples and early applicants. The Messrs. Allan, of the Allan Steamship line, through their passenger agent, Mr. Hannah, have extended an invitation to members and their wives to partake of luncheon on board the Tunisian at Montreal, at 1 o'clock on Thursday, Oct. 8. Those who had the pleasure of being present at a similar function on the same steamer two years ago will, I am quite sure, be only too happy to repeat the experience. It is hoped that many will answer in the affirmative question No. 7 in the form of application. To make satisfactory provision for the transportation and commissariat of a large party, it is very necessary that the individual attempting such duties should have, as early as possible, an approximate idea of the number for which he has to cater. I hope, therefore, that every member who contemplates the trip will return without delay the accompanying form of application, properly setting forth his requirements. Late applications cause unnecessary trouble to the Company's Officers from whom transportation has to be obtained. Members in arrears must clear same to participate in outing. Agents not members can become such by remitting \$3 to the Secretary-Treasurer. A second circular, giving more definite particulars and corrected itinerary, will be issued and sent to those interested, together with banquet tickets and passes as requested. At the Executive meeting aforesaid, it was decided that Article 3, commencing "Any ticket agent in charge of a coupon ticket office in Canada, &c.," should be understood to include lake and river steamboat ticket agents in charge of coupon ticket offices; all such, therefore, are now eligible for membership on the usual terms.

F. W. Churchill, C.P.R. town agent at Collingwood, and a past President of this Association, was unanimously appointed to represent us at the 48th Annual Convention of

the American Association of General Passenger and Ticket Agents, to be held at New Orleans on Oct. 13, 1903. It is more than probable that Mr. Churchill will be called upon to address the meeting as to the objects of our Association and the work accomplished. If, therefore, any member has any suggestions to make as to what he thinks might with advantage be embodied in such address, he is requested to communicate with Mr. Churchill. Too much praise cannot be given to the railway officials, whose territory we are about to visit, for their untiring efforts in bringing about and perfecting the satisfactory arrangements now submitted. The good seed sown, the hospitable soil and the patient tilling and pruning should yield a bountiful harvest of success, and all that is necessary to assure it is the presence of all the members who so strongly approved of Sydney as the meeting place for 1903.

Itinerary: Thursday, Oct. 8, 8.00 p.m. Leave Montreal in special palace sleeping-car train, by the Intercolonial Railway from Bonaventure Station. Friday, Oct. 9. It is hoped that Halifax will be reached not later than 10 p.m. The "Halifax" and "Queen's" hotels have submitted the following tariff: "The Halifax," \$2.50 per cap. per day, with \$1.00 additional for rooms with bathroom attachments. "The Queen's," for married couple, or two in a room, \$3.50 per day; one person in a room, \$2.00 per day. Saturday, Oct. 10. At Halifax, N.S. At 9.00 p.m., leave Halifax for Sydney, N.S. Sunday, Oct. 11. Arrive at Sydney about 9 a.m. Headquarters will be established at the Sydney Hotel. Rates, \$2.25 per day for one in a room; \$2.00 each for married couples or two in a room. Monday, Oct. 12, 10 a.m.—Annual Meeting. 2.00 p.m.—Visit to the Dominion Iron & Steel Company's Works. 9.00 p.m.—C.T.A.A. annual dinner, at Sydney Hotel. Tuesday, Oct. 13. At Sydney, 7.00 p.m.—Leave Sydney by Intercolonial Special. Wednesday Oct. 14. It is expected to reach St. John, N.B., about 11.30 a.m. The following are the hotels at St. John and terms arranged: "The Royal," \$2.25 per cap. per day; rooms with bathroom, 75c. extra. "The Dufferin," \$2.25 per cap. per day, one in room; \$2.00 married couple or two in room. "The Victoria," \$2.25 per cap. per day, one in room; \$2.00 married couple or two in room. An invitation to take a trip round the harbor, and visit other places of interest, has been accepted. Thursday, Oct. 15, 8.30 a.m.—All aboard the steamer Victoria for Fredericton, on the St. John River, the Rhine of America. 3.00 p.m.—Arrive at Fredericton, where a reception in the New Brunswick Legislative Buildings will be one of the main features of the visit. 10.00 p.m.—Leave for Montreal by special train over the C.P.R. short line. Friday, Oct. 16. Montreal is expected to be reached about noon. Disperse.

R. Reford, who has been appointed a member of the Transportation Commission, is a native of the North of Ireland, and came to Canada in 1845, and after a short stay in Montreal, removed to Toronto, returning to Montreal in 1865, and interested himself in shipping matters, becoming agent for the Donaldson and Thomson lines. Mr. Reford has done much towards establishing a Canadian cattle trade with Great Britain, and was the first to bring steamers direct with Mediterranean fruit. Mr. Reford has been a member of the Board of Trade for 35 years, and sat on its council in 1890-91. He has represented the shipping interests on the Harbour Board for some years.

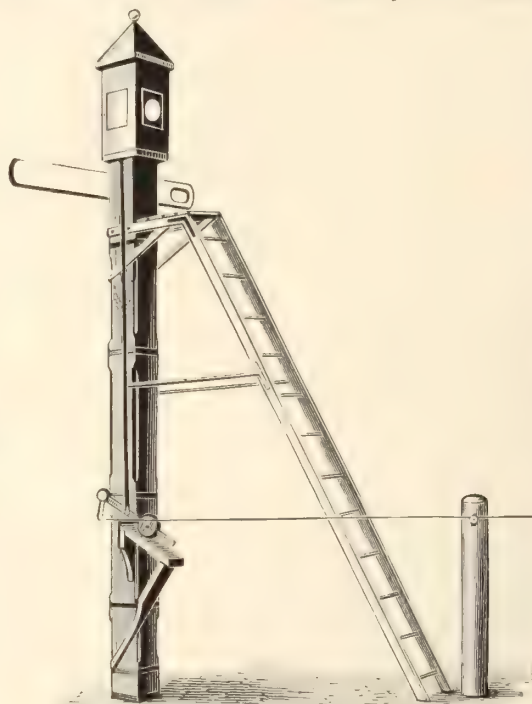
It has been officially announced that the Montreal Street Ry. Co. will increase its capital by \$1,000,000.

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WINNIPEG.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Constructions, Betterments, Etc.

Algonquin Lumber and Power Co.—C. A. Barclay, S. H. Stevenson, of Brougham, Ont.; L. T. Barclay, of Whitby, Ont.; J. R. Booth, of Ottawa; J. Carnegie, of Port Perry, Ont.; A. G. Henderson, E. F. Burton, of Toronto; M. Carr, of Powassan, Ont., were incorporated at the current session of the Dominion Parliament with this title, for the purpose of, among other things, constructing railway sidings, tramways and spur lines, not exceeding in any one case 10 miles in length, and to connect the same with any line of railway. The capital of the Company is \$1,000,000, and the head offices will be in Toronto. (June, pg. 213.)

Argenteuil County.—An endeavor is being made to arrange for a railway through Argenteuil, Two Mountains and Laval counties, to serve St. Andre, St. Placide, St. Benoit, Oka, St. Joseph, St. Eustache, Ste. Dorothee and St. Martin.

Berlin, Waterloo, Wellesley and Lake Huron Ry.—An act incorporating a company with this title was passed at the current session of the Dominion Parliament. (July, pg. 233.)

Brandon and Southwestern Ry.—An act has been passed at the current session of the Dominion Parliament authorizing the construction of a railway from Gladstone or Brandon, in extension of its line, to a point on Lake Winnipegosis, and thence northerly to a point on the Saskatchewan river. The company is authorized to enter into an agreement with the C.P.R. or any other company for the lease or sale of its line, subject to the approval of the Governor-in-Council. (Jan., pg. 19.)

Brandon, Saskatchewan and Hudson's Bay Ry.—On being reconsidered by the Railway Committee, by order of the House of Commons, the act incorporating the B.S. and H.B. Ry. was passed. It subsequently was passed by the House of Commons and the Senate, and is now law. (July, pg. 233.)

Bruce Mines and Algoma Ry.—The application for an act, at the current session of the Dominion Parliament, authorizing the extension of the line from its present terminus to a point on Hudson's Bay, has been withdrawn. (July, pg. 233.)

Canada Atlantic Ry.—Arrangements are being made for the starting of surveys early in the fall for the projected extension of the line from near Whitney, Ont., to Sault Ste. Marie, Ont. G. A. Mountain, Chief Engineer of the C.A. Ry., will have charge of the work. (Aug., pg. 267.)

Canadian Yukon Western Ry. (Electric).—R. A. Turenne, J. Barette, F. H. Fairbanks, of Dawson, Yukon Territory; L. A. Herdt, C. Archer, of Montreal, and J. H. Lamont, of Prince Albert, Sask., have been incorporated at the current session of the Dominion Parliament with this title, to construct a railway or tramway from near Dawson city, through Forty Mile Creek to the International Boundary. The offices of the company are to be at Dawson, and the capital is fixed at \$500,000, and it may issue bonds to the extent of \$40,000 a mile. The line has to be commenced within two years. (June, pg. 213.)

Cape Breton Coal, Iron and Railway Co.—Surveys are being made for a short line of railway to connect the company's collieries, now being developed, with the Sydney and Louisburg Ry. It is proposed to establish a shipping pier at Louisburg, N.S., towards which the town has voted a subsidy of \$30,000 and exemption from taxes for five years.

Chateauguay and Northern Ry.—The interlocutory injunction issued on petition of the

Chateauguay & Northern Ry. Co. to prevent the Montreal Park & Island Ry. Co. from going on with the construction of a line from the terminus of the Montreal Street Ry. in Maisonneuve, through the parish of Longue Pointe, has been maintained and made perpetual. The court ordered the M.P. & I. Ry. Co. to demolish and remove the work constructed since January within fifteen days, otherwise the C. & N. Ry. Co. will be authorized to demolish and remove the works at the cost and expense of the defendant company. Furthermore, the M.P. & I. Ry. Co. is condemned to pay the C. & N. Ry. Co. \$500 damages, with the cost of the proceedings. The court ruled that the contract entered into Feb. 6, 1899, between the companies whereby one agreed not to construct any lines within the other's territory was perfectly legal, and this prevented the M.P. & I. Ry. Co. from building its line within the limits of Longue Pointe, Pointe aux Trembles and Riviere des Prairies. A railway company, the court ruled, was not bound to construct the lines provided for in its charter; it simply obtained the authority to do so, and the failure to do so entailed only the loss of the powers of the company to do so. Moreover, the court held that, as the undertaking of the defendant company has been declared to be within the authority of the Parliament of Canada, the Railway Act of Canada applied, and that under section 89 of that act the authority of the defendant company to construct its line had long ago expired. Besides, the company had not complied with the sections of the Railway Act which provided that plans of the lines to be built and notice that the company desired to proceed to build such lines must be deposited in the office of the Clerk of the Peace for the district, and in the Department of Railways and Canals, at Ottawa, and that the permission of the Railway Committee of the Privy Council must be obtained. The judgment, moreover, stated that the plaintiff had the power and authority to construct a line on the Island of Montreal, and also circuit lines in the towns and parishes along the main line, and branches outside the limits of the old parish of Montreal, and that the time for such construction had not expired. The plaintiff was, therefore, interested in opposing the construction by the defendant of a railway in the parish of Longue Pointe. (Aug., pg. 267.)

Chatham, Wallaceburg and Lake Erie Ry.—Geo. Stephens, N. H. Stevens, W. E. McKeough, W. Ball, of Chatham, Ont.; D. A. Gordon, of Wallaceburg, Ont.; W. N. Warburton, of St. Catharines, Ont.; J. N. McKendry, F. Broderick, and H. L. Dunn, of Toronto, were incorporated at the current session of the Dominion Parliament with this title to construct a railway from Chatham to Wallaceburg, and Petrolia, Ont.; from Chatham to Rondeau, Ont., with branches to Dresden and Blenheim. The company may operate its line by electricity. It may lease or sell its lines to the G.T.R., the C.P.R., the Canada Southern Ry., or the Lake Erie and Detroit River Ry. The head office is to be at Chatham, and the capital of the company is fixed at \$1,000,000. Preferred stock may be issued, and bonds to the extent of \$30,000 a mile may be issued. Construction has to be commenced within two years and completed within five years. (June, pg. 213.)

Cuba Co.—P. A. Peterson, formerly Chief Engineer, C.P.R., recently returned from Cuba, where he had been for the purpose of inspecting the Company's railway. He says the country through which the railway runs has a very rich soil. The line now runs from Santa Clara to San Luis, a distance of about 350 miles. There are two branches, one from San Luis to the north shore, a distance of about thirty miles, and the other an extension of about nine miles, to Santeo Espiritus, near

the centre of the island, giving two lines at right angles to the main road. Both these will be completed in about three months, and will be running.

Embro Radial Ry. (Electric).—The promoters express confidence that they will be able to begin construction on the lines from Embro to Woodstock, and from Embro to St. Mary's, Ont., in the spring. (July, pg. 235.)

Frank and Grassy Mountain Ry.—Some difficulties have arisen between the owners and the contractors for the construction of this line from Frank, Alta., to the coal mines, over money matters. The contractors, Poupore & McVeigh, entered suit for \$21,000 against the company, and have secured an injunction preventing the operation of the line. The contractors have now torn up a portion of the line and established a camp in the gap to prevent the Company seizing the line. (Feb., pg. 39.)

Fraser River Bridge.—Work was commenced July 30 in placing the first steel girders of the superstructure over the Fraser river bridge at New Westminster, B.C. The work of completing the stone piers on the New Westminster end has been resumed, having been delayed by the freshet. In the meantime the south side railway approach has been completed, and false work erected between the finished stone piers to facilitate the placing in position of the steel girders, etc. An immense travelling crane has been erected, and now towers above the water to a great height. The approach crosses 22 feet above the Great Northern Railway track, the connection being made by a curved trestle with a one per cent. grade compensated. (July, pg. 235.)

Great Northern Ry. (U.S.)—Press reports state that the Pelican Rapids branch will be extended through the White Earth Reservation, Minn. This new line will parallel the projected line of the Minneapolis, St. Paul and Sault Ste. Marie Ry. from Glenwood to St. Vincent. A. H. Hogeland, St. Paul, Minn., is the engineer in charge of the work.

Guelph and Georgian Bay Ry.—The Dominion Parliament at its current session passed an act incorporating the applicants named with this title. The capital is fixed at \$600,000, and bonds to the extent of \$20,000 a mile may be issued. The company may use electricity as a motive power, and is given power to lease its lines to, or amalgamate with, the G.T.R., the C.P.R., or the Guelph Ry. Co. The line is to be commenced within two years and completed within five years. The head office is to be at Guelph, Ont. (June, pg. 214.)

Halifax and Southwestern Ry.—Some cargoes of steel rails have been landed at Bridgewater, N.S., for use on the H. and S. Ry., and the New Caledonia branch of the Nova Scotia Central Ry., under construction for the Nova Scotia Southern Ry. (Aug., pg. 267.)

Hamilton, Caledonia and Lake Erie Ry. (Electric)—The question of the route of this projected railway through Hamilton, Ont., has not been settled. Alternative routes have been considered, but nothing has been finally approved of. (July, pg. 235.)

Hamilton, Grimsby and Beamsville Electric Ry.—The extension to Vineland, Ont., is being proceeded with, and the grade was expected to be ready for tracklaying by the end of August. (July, pg. 235.)

Hamilton Radial Ry. (Electric)—An agreement has been arrived at between the H.R. Ry. Co. and the Hamilton city council by which the company will construct an additional track alongside its present railway track from the corner of Birch avenue and Barton st. northerly and easterly to a station on the concession road east of Sherman av-

enue near the works of the International Harvester Co. and the Hamilton Steel and Iron Co., now called Irondale station, and to permit the Hamilton Street Railway Company to run its cars over said line between certain hours without charge by the H.R. Ry. Co. to the H.S.R. Co., beyond the share that may be mutually agreed on between the companies, and of the fares charged by the H. S. Ry. to the passengers so carried. (Jan., pg. 23.)

Hamilton Street Ry.—See Hamilton Radial Ry. (May, pg. 147.)

Hudson's Bay to Buenos Ayres.—A press despatch from Guthrie, Ok., dated Aug. 24, states that articles of incorporation of the Pan-American Rd. Co. have been filed there. The capital stock is fixed at \$250,000,000, and the Company proposes to construct a trunk line from Port Nelson, on Hudson's Bay, southerly, crossing the line of the C.P.R. near Winnipeg, Man., thence through North and South Dakota, Nebraska, Kansas, Oklahoma and Indian Territory to Galveston, through Mexico to the Isthmus of Panama, through Colombia to Ecuador, and finally through Peru to Buenos Ayres, the capital of the Argentine Republic. The company also proposes to acquire or construct a number of branch lines in Canada, the United States and other countries through which the line will run.

A charter was issued to the American Town Site Co., an adjunct of the railway corporation, with a capital stock fixed at \$10,000,000.

Huron and Ontario Ry. (Electric)—McK. Cameron, secretary, recently stated that the company expected to have 30 miles of track laid this fall, a contract for the construction of a section of the line being about to be signed. (July, pg. 235.)

Intercolonial Ry.—Tenders are under consideration for the construction of a new engine house at Riviere du Loup, Que.

The Dominion Parliament has voted the following sums for betterments, etc., during the current session, chargeable to capital:

To increase accommodation at Sydney.....	\$10,400 00
Original construction.....	400 00
To strengthen bridges.....	33,020 00
To increase accommodation at Lewis.....	14,400 00
Increased accommodation at Stellarton.....	6,400 00
New superstructure for Restigouche Bridge.....	24,600 00
New superstructure for Northwest Miramichi Bridge.....	18,000 00
Improvements at Point Tupper.....	5,000 00
Yard for freight business at Riviere du Loup.....	2,000 00
To extend freight car repair shop at Moncton.....	5,500 00
Engine house, machine shop, car shop, stores, office at Riviere du Loup.....	10,000 00
Engine house, etc., at Chaudiere Junction.....	10,000 00
Increased accommodation at St. John.....	21,200 00
To increase accommodation at Halifax.....	20,900 00
To increase accommodation at Pictou.....	7,300 00
Improvements at North Sydney.....	2,600 00
Building a spur line of railway from I.C.R. Station at Riviere Ouelle to the wharf on the St. Lawrence.....	5,400 00
To increase accommodation at Moncton.....	17,800 00
Dwelling for agent at Eel River.....	360 00
Increased accommodation at Amqui.....	1,000 00
Increased accommodation at Ste. Flavie.....	19,000 00
Towards improving ferry service at Strait of Canso.....	2,200 00
Improvements at Nicolet.....	400 00
Increased accommodation at Truro.....	15,000 00
Improvements at Little Metis Station and diverting public road.....	800 00
To purchase power saw for sawing rails, etc.....	230 00
To increase water supply.....	800 00
To increase accommodation at Lewis.....	34,000 00
Towards improving ferry service at Strait of Canso.....	20,000 00
Improvement at Nicolet Station.....	600 00
Towards building branch from Riviere Ouelle Station.....	23,000 00
Eastern Extension Railway of N.B. balance of interest on Award of Arbitrators, viz., interest on \$148,968.75 from July 1, 1901, to date of payment, August 22, 1901, at 5 per cent. and interest on \$5,000 retained from August 23, 1901, to March 28, 1902, at 5 per cent.....	\$ 1,230 87
One-half arbitrator's and surveyor's fees, Eastern Extension Railway, Nova Scotia—revote of lapsed amount.....	3,952 62

(Aug. pg. 268.)

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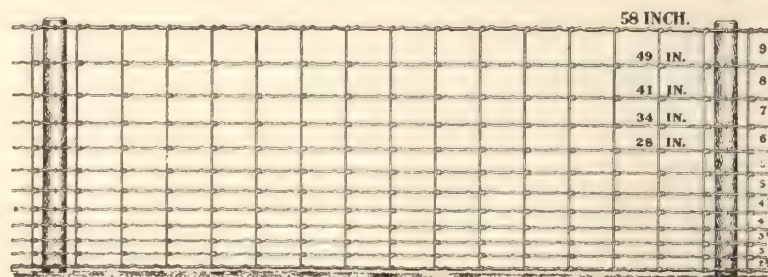
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Kettle River Valley Ry.—An act was passed at the current session of the Dominion Parliament authorizing the company to lease its lines to or amalgamate with the C.P.R., or any other company whose lines intersect. (Feb., pg. 41.)

Lake Erie and Detroit River Ry.—A second coal hoist is under construction at Rondeau, Ont. It will be larger than the one erected in 1892, having a total length of 267 ft., against 192, and its capacity will be double, being 5 tons a lift. (Aug., pg. 268.)

Levis County Ry. Co. (Electric)—A gang of men was recently put to work on this line between Bienville and the I.C.R. iron bridge at St. Joseph de Levis, Que., and it was expected that the cars will be running to that point by the end of August. (April, pg. 119.)

Manitoulin and North Shore Ry.—An act has been passed at the current session of the Dominion Parliament extending the time for the commencement and completion of the authorized railway, and giving power to construct the following lines: from near Elsie mine, northeasterly 50 miles to Lake Timagami, Ont., from a point in Drury tp. to Sault Ste. Marie, and thence to a point on Lake Superior between Michipicoten and Batchawana bay; from a point in Bowell tp. to a point in MacLennan tp. The line formerly authorized from near Sudbury to Batchawana bay has been abandoned. (Aug., pg. 269.)

Medicine Hat and Northern Alberta Ry.—An act has been passed at the current session of the Dominion Parliament authorizing an extension of time for the commencement and completion of the lines projected, and giving power for the construction of branch lines from near Medicine Hat, Alta., to the International Boundary line near Milk river; from a point near tp. 31, range 17, west of the 4th meridian, northwesterly to near Ponoka, on the Calgary and Edmonton Ry., and thence to Rocky Rapids on the North Saskatchewan river; from a point near Battle river to Hudson's Hope on the Peace river; from a point on Athabasca river to Lesser Slave lake; from Strathcona to Athabasca Landing, and from Battle river to Water Hen lake. (Feb., pg. 43.)

Metropolitan Ry. (Electric)—Surveys are being made for the extension of the line from Newmarket, Ont., northerly to Lake Simcoe.

Michigan Central Ry.—The application of the St. Thomas, Ont., city council for permission to construct a subway for its street railway under the M.C. Ry. tracks at Ross st., and for level crossings on Elgin and William streets, is under consideration by the Railway Committee of the Privy Council. (July, pg. 237.)

Middletown and Victoria Beach Ry.—Press reports continue to state that this line, under construction from Middletown to Victoria Beach, N.S., has been sold, one account stating that the purchasers are Mackenzie, Mann & Co., and another that it has been acquired by the Midland Ry. Co. All these reports lack confirmation. (Aug., pg. 269.)

Midland Ry.—A large shipping wharf for lumber, to be shipped coastwise, has been completed by the company at Dimock station, N.S.

Midway and Vernon Ry.—An act has been passed at the current session of the Dominion Parliament declaring that the lines authorized to be constructed under the B.C. act of incorporation, are for the general advantage of Canada. (Feb., pg. 43.)

Moncton and Buctouche Ry.—A new bridge has been built at Little River, N.B. J. Lockhart, of Salisbury, N.B., was the contractor.

Montreal-Longueuil Bridge.—The act incorporating U. H. Dandurand and others with this title, has been passed at the current

session of the Dominion Parliament. The company has been given power, in addition to constructing the bridge, to construct railways to connect it with existing and future railways on either or both sides of the St. Lawrence river, and to lease or sell the bridge, etc., to any other company. The tolls to be charged for the use of the bridge are to be subject to the approval of the Governor-in-Council. The capital of the company is fixed at \$3,000,000, and bonds to the amount of \$3,000,000 may be issued. The offices of the company are to be in Montreal, and construction is to be commenced within two years and completed within five years. (June, pg. 217.)

Niagara, Queenston and St. Catharines Ry. (Electric)—The Dominion Parliament has passed the act incorporating a company with this title to construct an electric railway from St. Catharines to Queenston, returning to the starting point via Niagara-on-the-Lake, Ont. (July, pg. 239.)

Nicola, Kamloops and Similkameen Ry.—An act has been passed at the current session of the Dominion Parliament, declaring the lines authorized to be constructed under the British Columbia act of incorporation to be for the general advantage of Canada. (Feb., pg. 44.)

Nipissing and Ottawa Ry.—The application for an act incorporating a company to construct a railway through the Nipissing district to Ottawa, was withdrawn at the current session of the Dominion Parliament. (April, pg. 121.)

New Brunswick Coal and Ry. Co.—Ballasting is nearly completed on the 15 miles of line from Chipman to the Newcastle, N.B., coal fields, and the line is expected to be open for traffic early in Sept. Five miles of sidings have been laid. (June, pg. 217.)

Prince Edward Island Ry.—Among the sums voted at the current session of the Dominion Parliament for betterments, etc., on the P.E.I. Ry. were the following:

To widen wharf and provide coal shed at Summerside.....	\$ 400 00
Murray Harbor Branch and Hillsboro' Bridge.....	450,000 00
To increase accommodation at Kensington	200 00
To increase accommodation at Hunter River.....	200 00
To straighten lines at Curtes' Creek.....	3,000 00
To provide baggage room at Souris.....	80 00
To improve the water service.....	4,800 00
To provide additional accommodation at Kin-kour.....	160 00
To provide new station at Northam and Richmond	200 00
Addition to freight house, Mount Stewart	300 00
To provide and lay steel rails	13,400 00

Quebec and Lake St. John Ry.—J. G. Scott, General Manager, has issued a statement regarding the company's line, in which he says: The entire roadbed of the railway between Quebec, Roberval and Chicoutimi has been ballasted and widened, heavy grades have been cut down, curves taken out, wooden bridges replaced with steel structures capable of carrying the heaviest rolling stock now used, and a large portion of the track relaid with heavy steel rails weighing seventy pounds to the yard. On the Chicoutimi branch of the road all the wooden trestles, some of which were of very great height, have been filled in with earth, the water-courses being provided for by the erection of masonry arch culverts sufficiently high for a man to walk through. At the Jacques Cartier river the line has been entirely changed, some four miles of new straight road being built, doing away with a number of curves, and saving a mile and a quarter in distance. This has necessitated a new steel bridge over the Jacques Cartier, which has been built of the heaviest specification known. (Feb., pg. 45.)

Quebec, New Brunswick and Nova Scotia Ry.—The act incorporating a company with this title has been passed by the Senate and is now law. (Aug., pg. 269.)

Red Deer Valley Ry. and Coal Co.—An act has been passed at the current session of the Dominion Parliament reviving the charter of incorporation of this Company. (July, pg. 240.)

Sarnia, Petrolia and St. Thomas Ry.—Having obtained the charter for the construction of a line from Sarnia to St. Thomas, Ont., some of the local provisional directors have retired, and their places are taken by F. H. Prince, President, Pere Marquette Rd., and M. J. Carpenter, 2nd Vice-President and General Manager, Pere Marquette Rd. (July, pg. 241.)

Stratford Radial Ry. (Electric)—Negotiations are in progress with the Stratford, Ont., city council for a franchise. It is proposed to construct a line in the city, and a line from Stratford to Mitchell, 12 miles. (July, pg. 241.)

Temiskaming and Northern Ontario Ry.—The difficulty with the tracklaying gang was only temporary and work is going on. A ballasting train has been put on.

The line will be constructed to New Liskeard next year, and it is expected that it will be carried to a junction with the Dominion Government line from Moncton to Winnipeg, which it is expected will run about 70 miles north of New Liskeard. It is understood that a preliminary survey for this extension will be undertaken during the winter. (Aug., pg. 269.)

Tillsonburg, Lake Erie and Pacific Ry.—An officer of the railway is quoted as recently saying that "The road will certainly be extended through Stratford, provided that reasonable inducements are offered. The work of making the necessary surveys is being delayed only by the work necessary in establishing coal docks, etc., at Port Burwell, Ont. (July, pg. 241.)

Toronto, Hamilton and Buffalo Ry.—Press reports state that the T.H. and B. Ry. proposes to extend its line from Brantford northerly to Woodstock or Drumbo, Ont. (July, pg. 241.)

Trans-Canada Ry.—G. Tanguay, M.P.P., chairman of the board of directors Trans-Canada Ry. Co., recently stated that the Government would likely take over the charter of the line and the surveys, recouping the company for the outlay made. The Premier in the House of Commons stated in reply to a question that the Government had not made any arrangement for the transfer of the charter to the Grand Trunk Pacific Ry. (April, pg. 123.)

Vancouver, Westminster, Northern and Yukon Ry.—The Railway Committee of the Privy Council has refused the application of the C.P.R. to restrain the V., W., N. and Y. Ry. from constructing a crossing at Sapperton, B.C., pending an appeal to the Governor-General. The Committee gave the Company the right to construct the crossing, and the C.P.R. desired to have the question reopened. The line is graded right up to the C.P.R. right-of-way on the east, and the Company will immediately proceed with the grading across and down to connect with the work that has been done at the approach of the bridge. A contract for the erection of a bridge over False Creek has been let to Ironsides, Rennie & Campbell. (Aug., pg. 269.)

Western Alberta Ry. Co.—An act has been passed at the current session of the Dominion Parliament granting an extension of time for the commencement and completion of the company's projected lines of railway. (Feb., pg. 49.)

Winnipeg Electric Street Ry.—The St. Boniface, Man., city council asked the W.E.S. Ry. Co. to consider the question of constructing a line in that city. The plan submitted is

for the line to cross the Norwood bridge to Mason Avenue, along that street to Tache, and through Provencher Avenue to the College. As a result an agreement has been entered into between the company and the city council for the construction of $1\frac{3}{4}$ miles of track. The work will be gone on with at once and the line is expected to be in operation early in Oct. (July, pg. 241.)

Canadian Northern Ry. Construction.

General.—The Globe publishes the following interview with W. Mackenzie, President of the Canadian Northern Ry., as a telegram from its Ottawa correspondent, under date Aug. 27:—"It is hardly correct to say that we have abandoned our proposed transcontinental line, but it does look as though we would have to postpone the construction of a through line from the Atlantic to the Pacific." This was the response made to your correspondent to-night by Mr. Mackenzie when shown the telegram crediting his partner with having stated that the Mackenzie & Mann transcontinental line would be abandoned. "Substantially," Mr. Mackenzie went on to say, "the statement is correct, but I doubt very much if Mr. Mann used the word 'abandonment.' We have not given up the idea of striving and working as best we may towards the desired goal. The transcontinental line does not depend so much upon us, however, as upon the Government and the country. It is just a question whether the country would aid a third transcontinental line."

"What about your south shore line from Halifax to Yarmouth?"

"We expect to have it completed at an early date. We have a very large amount of work already performed on it."

"What progress is being made with your western extension?"

"We have the biggest force of men at work on railways in the west that has been seen there since the original construction of the C.P.R. I refer particularly to the extension of our main line from Grand View to Edmonton, and the branch to Prince Albert. We expect to have 300 miles of the line to Edmonton railed by the end of the season. We shall most likely carry out to Lake Superior more grain than last year, when we transported 13,000,000 bushels. At Port Arthur our elevator accommodation is being doubled, which will enable us to care for 7,000,000 bushels."

Eastern Construction.—Referring, on his recent return from England, to the Grand Trunk Pacific Ry. project and its probable effect on C.N. Ry. plans, President Mackenzie said it was not possible to say anything definite. The C.N. Ry. had done no construction work so far, east of Port Arthur, Ont., although surveying parties were working. The proposal of the Government to give the G.T. Pacific an exclusive lease of the line from Moncton to Winnipeg, with the proviso that other companies should have the right to run trains over it, would not suit the C.N. Ry. His company had been going ahead with its work and would continue to do so. The C.P.R. are now able to handle ten times the business they have now. "We are uncertain what the route of the two lines will be, but we cannot run over the G.T.R., under their lease from the Government."

Branch from Warroad.—Press reports state that Foley Bros., of St. Paul, Minn., have secured a contract to build 35 miles of line from Warroad into the Badger district of Minnesota. (Aug., pg. 270.)

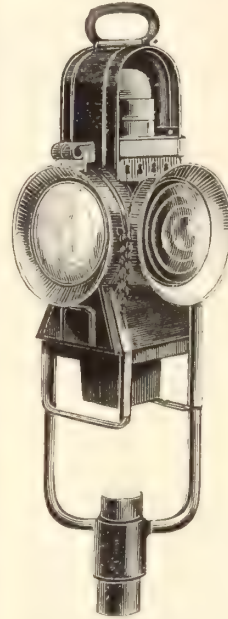
Winnipeg Hotel.—D. D. Mann recently stated that a beginning would be made with the construction of the Company's hotel on the Fort Garry park property in the spring. The agreement with the city council respect-

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ing the closing of a street, and approving of the plans of the hotel, new station, etc., has not been finally approved. (July, pg. 243.)

Rosburn Branch.—About 20 miles of grading on this branch was reported completed early in Aug. The grade has been finished to the Saskatchewan river, and some work has been done forward from the eastern bank of the river. (Aug., pg. 271.)

Grand View-Edmonton Extension.—Rapid progress is reported on the grade from Grand View westerly by the different contractors.

The British colonists at Lloydminster are reported to have 125 teams at work grading easterly towards the Saskatchewan river, and expect to have 25 miles ready for track-laying early in Nov. The colonists will start grading westerly from Lloydminster in the spring. Aug., pg. 271.)

Prince Albert Extension.—R. Stanley, of Stanley & Girond, contractors, recently stated in Prince Albert that the grading to Melfort was well forward, and that track would be laid to Melfort this season. His firm has commenced grading from Melfort easterly, to meet the gangs working west. The contract for the station and yard accommodation at Melfort has been let to Stanley & Girond. (Aug., pg. 271.)

Hudson's Bay Line.—No official information can be gathered with respect to the plans for the construction of a line to Hudson's Bay. Local press reports, however, state that the line will start from a point about 150 miles east of Prince Albert, Sask., and that Fort Churchill will be the terminal point. This will give a line about 500 miles in length. A survey party is in the field, and a report states that construction will be commenced in the spring. (Aug., pg. 271.)

Edmonton.—With one or two slight exceptions the grading of the right-of-way to the new station and yards at the Hudson's Bay reserve has been completed ready for track-laying. There are some slight disputes with regard to the property at the uncompleted portions of the right-of-way which are in course of adjustment. (Aug., pg. 271.)

C.P.R. Betterments, Construction, Etc.

Halifax.—Local press reports state that the C.P.R. is investigating the water front at Halifax, N.S., with a view of having wharf accommodation there for some of its trans-Atlantic steamers.

London Belt Line.—Land is being acquired for the construction of the projected line to connect all the railway lines in London, Ont., with a view to the interswitching of cars.

North Bay Roundhouse and Shops.—The mason work at the new roundhouse has been completed, and the walls of the new shops are well advanced. The walls are of Arn-prior limestone, with base and window-sills of dark sandstone. The roundhouse, for the present, will form but a half circle, permitting the completion of the other half when needed. The turn-table will be of sufficient dimensions to accommodate the largest engine or longest coach. The new car scales are being placed next to the lake. They also will be erected upon a stone foundation ten feet deep, the work of which is in keeping with that of the other structures. Munro & Co. are the general contractors, and they have sublet the contract of roofing the shops to J. B. Brennen, of Montreal. (Nov., 1902, pg. 379.)

Scoville Lake Bridge.—The bridge at Scoville lake, which gave way early in May, has been repaired, and it is proposed to construct a new bridge on another site. Surveys have

shown that 200 feet south of the present bridge the lake has a secure bottom, and it is understood that this position will be adopted. A steel bridge is proposed.

Western Lines.—W. Whyte, Assistant to the President, recently stated in Montreal, that from a C.P.R. standpoint, the Co. was not greatly interested in the proposed extension of the Minneapolis, St. Paul and Sault Ste. Marie Ry., notwithstanding the fact that the C.P.R. had the controlling interest in that line. The C.P.R. was not looking for a through line from Fort William, Ont., to St. Paul, Minn. What the C.P.R. was aiming at most especially was to make the line through-out the West an all-Canadian one.

Main Line Survey.—A party of surveyors are making a resurvey of the main line from Ignace, Ont., to Medicine Hat, Assa. New mile-posts are being put up and the bridges are being renumbered. The work is rendered necessary by the many alterations that have been made in the line since it was constructed. The party has reached Winnipeg, and will be out until fall.

Winnipeg Subway, etc.—The agreement between the C.P.R. and the city council respecting the construction of the subway, the new station and the hotel, it is understood, has been approved of by both parties, and it was expected to be formally signed by the city council by the end of August. The chief difficulty to the settlement of the matter was the claims of some property owners, which have now been satisfactorily disposed of. (Aug., pg. 271.)

Winnipeg Yards.—The contract for the construction of the new shops has been let to the Manitoba Construction Co., and work has been commenced on the foundations. (Aug., pg. 271.)

Winnipeg Shops.—The freight car repair shops at Winnipeg were burned Aug. 15. Twenty-five cars and a snow plough were also consumed. The damage is \$20,000, fully covered by insurance.

Pipestone Branch.—The grading on the extension of this branch from Arcola into Regina, Assa., is being pushed ahead rapidly. The work at Regina, where a junction will be effected with the transcontinental line, has been completed, and the additional buildings necessary are in course of erection. A Winnipeg paper reports W. F. Tye, Assistant Chief Engineer, as having stated that track would be laid on the extension into Regina, Assa., this year. It is intended to construct a line southerly from a point in tp. 8 north, 8 west, southerly to Estevan, so as to give connection with the Souris coal fields. This branch, it is expected, will be constructed next year. (June, pg. 205.)

Pheasant Hills Branch.—Grading on this branch from Kirkella, on which 40 miles of track was laid in 1902, was recently reported to have reached Jumping Deer, 150 miles from Kirkella. (June, pg. 205.)

Manitoba and Northwestern Ry.—Speaking of the work on the extension of the line from Yorkton, Assa., W. F. Tye, Assistant Chief Engineer, recently stated in Winnipeg that track had been laid on 45 miles, and that the grading of an additional 30 miles had been completed. The 45 miles was graded in 1902 and 30 miles of track laid thereon. (July, pg. 245.)

Carberry to Neepawa.—A survey is being made for a line to connect Carberry and Neepawa, Man., via Wellwood, about 25 miles. The survey party has also been locating a site for a new station at Neepawa. The grades between Franklin and Neepawa, on the Manitoba and Northwestern line, will be reduced in connection with the construction of the new line.

Calgary and Edmonton Ry.—J. W. Leonard, Assistant General Manager, Winnipeg, recently inspected the line between Macleod and Edmonton, Alta., with a view of reporting on the improvements necessary to bring the road into line with other C.P.R. branches. Surveys are being made for the extension of the line into Edmonton from Strathcona by a new high level bridge. (June, pg. 205.)

North Bend Roundhouse.—Tenders have been received for the construction of an eight-stall roundhouse at North Bend, B.C.

Kootenay and Arrowhead Ry.—A side track and a station are to be erected at Poplar Creek, B.C., at which point a large trade has grown up. (Nov., 1902, pg. 379.)

Vancouver Station.—During a fire in the Harrison River Mills Co.'s lumber yard the station and sheds of the C.P.R. caught fire and were burned. Six loaded and two empty freight cars were burned.

Tourist Hotel at Victoria.—Some small matters in connection with the street plan surrounding the proposed hotel site have to be adjusted before the agreement is finally signed. It is stated that the hotel will contain 300 rooms, and will cost \$1,000,000. (July, pg. 245.)

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Work is being pushed on the branch from Glenwood, Minn., to the White Earth Indian Reservation, 125 miles, and it is reported that the line will be completed late this fall. It was expected to begin tracklaying at Glenwood early in August. (June, pg. 205.)

G.T.R. Betterments, Construction, Etc.

Island Pond Improvements.—Considerable improvements are being made at Island Pond, Vt. A new roundhouse and machine shop are to be erected, also new station, viaduct and footbridge, and the old freight sheds are to be removed. The new roundhouse will contain twenty stalls, each seventy feet in length, with the latest model ashpit equipment, and a new seventy-foot turn-table is to be put in just outside the building, the latter being half circle in shape.

Beaconsfield Station.—A new station is under construction at Beaconsfield, Que., on the western side of the track.

St. Lambert-St. John's Double Track.—The grading for the second track between St. Lambert and St. John's, Que., 21 miles, is already finished between St. Lambert and Brosseau, a distance of seven miles, and track has been laid about half this distance. The contractors expect to complete the grading of the second seven-mile section from L'Acadie to St. John's early in Sept. The new road is being laid with 80-lb. rails, and the roadbed will be a superior one. The road from the south shore to St. John's is the oldest piece of railway line in Canada, the terminus being at Laprairie before the construction of the Victoria bridge, the connection being made by the steamer Iron Duke, with a point near Customs House Square.

Toronto-Montreal Double Track.—Progress has been delayed on the uncompleted portion of the double tracking at Whitby, Ont., owing to the inability of the bridge contractors to obtain delivery of material.

Improvements at Lindsay.—Additional land has been purchased at Lindsay, Ont., adjoining the roundhouse, and a double track, 300 yards long, laid on it. The new property will be utilized as a coal storage yard.

Lindsay-Midland Double Track.—Surveys have been made with a view of double-tracking the line between Lindsay and Midland, Ont. The survey for the new work follows a route which will do away with the

curves and heavy grades of the existing line and give an easy road for the haul. This projected line is being objected to on account of the way in which it will cut up farms.

Toronto Yards.—A commencement has been made at the old Parliament buildings on Front St., Toronto, preparing for the laying out of the new yards. The agreement between the city council and the Company has been completed, and the fact that one prop-

erty owner would not agree to terms, kept the Railway Committee of the Privy Council from granting the order for the crossing of John and Front streets, to connect the new yards with the main line. The city council has approved of the plans for the offices and freight sheds. (Aug., pg. 271.)

Brantford Deviation.—A train service over the Brantford deviation, via Lynden, Ont., was inaugurated Aug. 10. The line, how-

ever, is not being used for through traffic to Chicago, as the bridges are only temporary structures. These will be replaced by permanent steel structures as soon as the material can be delivered. (July, pg. 243.)

London Switching Agreement.—Land is being acquired by the different railway companies with a view to the construction of the connecting lines to carry out the interswitching agreement. (Aug., pg. 271.)

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Grand Trunk Pacific Ry.

The division on the debate in the House of Commons upon the introduction of the bill for "the construction of a National Transcontinental railway," was expected to be taken on Sept. 1. In addition to the bill there is before the House a resolution approving of the agreement with the incorporators of the Grand Trunk Pacific Ry. Co. respecting the construction of the line, which agreement forms the schedule attached to the act. The bill ratifies the agreement, and makes provision for the proper carrying out of its terms by the parties thereto. The G.T.P. is given power to "acquire, hold, guarantee, pledge or dispose of stocks, bonds, debentures or other securities of the G.T. Pacific Ry. Co., subject to the consent of the shareholders." The eastern division is to be constructed by the Government, and leased to the G.T. Pacific Ry. Co., and until its being so leased it shall be under the charge and control of three commissioners, who shall hold office at will, to be styled "The Commissioners of the Transcontinental Ry." The Governor-in-Council will appoint a Secretary and Chief Engineer, the commissioners being authorized to appoint such other officers as may be necessary. The commissioners are empowered to expropriate lands, and the Governor-in-Council is authorized to set apart from the public lands so much as is shown by the Chief Engineer to be necessary for the roadbed; and the commissioners are generally given all the powers conferred on railway companies under the Railway Act. The commissioners shall advertise for tenders for the construction of the railway, the lowest tender to be accepted, provided the commissioners are satisfied that he or the firm is "possessed of sufficient skill, experience and resources to carry on the work or such portion as he has tendered for." The Governor-in-Council may direct the suspension of work on the eastern division at any time until the next session of Parliament. The Minister of Finance is authorized to make advances to the commissioners on account of construction, etc., as may be from time to time required, and loans may be raised to meet the cost of the line. The commissioners shall issue 50 year 3% debentures for the money required, such debentures to be deposited with the Minister of Finance, and to be a first charge on the line. The regular books are to be kept, and monthly accounts are to be furnished to the Minister of Railways by the commissioners, and an annual report is to be furnished to the Governor-in-Council. The accounts of the commissioners are declared to be subject to audit by the Auditor-General in the same manner as is provided by the Consolidated Revenue and Audit Act, with respect to the accounts mentioned in sec. 50 of that act.

The discussion on the bill, agreement and resolution has been a very full one, the chief interest, after the speech of the Premier in introducing the measure, being in those of the ex-Minister of Railways, Hon. A. G. Blair, and R. L. Borden, the leader of the Opposition. Mr. Blair, in the course of his speech, criticized the Government for acting in undue haste in regard to the matter, and expressed a fear that without proper investigation and due deliberation the country was being committed to a great enterprise that might prove a disastrous blunder, owing to lack of information as to the character of the country through which this road is to be built. The building of the road to Moncton, he declared to be a waste of public money, which would have the effect of injuring the Intercolonial Railway. There was no demand for the building of the road from any of the Provinces, and the only pressure that had been brought to bear for its construction had been exerted by the promoters of the railway. Mr.

Blair calculated that the construction of the road would involve the country in responsibilities aggregating \$129,000,000. "My own view," said Mr. Blair, "would be that if we wanted to pass railway legislation, if we wanted to do something of advantage for the transportation of the country, if we wanted to secure to our Canadian seaports the transportation of western products, we would have extended the Intercolonial Ry. to Georgian Bay by acquiring the Canada Atlantic Ry. Of course that involves a continuation of the principle of Government ownership, a principle to which I know a great many people are hostile. It would involve the Government doing something to which many people are not well disposed. When the Intercolonial Ry. was extended to Montreal, I felt that that would be the next move that we would take. I felt that it would be a proper move to take. I have been four or five years struggling valiantly in order to achieve immediate success in that direction. The move will be taken though. Other views which are more potent and other men will prevail upon Governments, and they will adopt that policy because it has virtue in it, it has profit in it, and it has hope in it, and it must be the means of realizing the national idea of using our own ports, winter and summer, for the carriage of the products of our own country. My proposition is this: We ought to have come before Parliament as a Government, and we ought to have said to Parliament and to the country, we are favorably impressed with the importance of the early construction of another transcontinental railway, but as business men, as prudent and cautious men, we think that the proper course for us to take is to get an appropriation from Parliament in order that this whole country, which it is proposed the railway shall traverse, in so far as it has not been officially explored, and in so far as we have not been made familiar with its conditions, shall be ascertained and made known to the people of Canada, in reports laid before Parliament at a later day, and then if these reports are favorable, it is our fixed purpose to ask Parliament to justify us and authorize us to go along with railway construction in that territory. My idea would be that we should go as far as we could reasonably and as the necessities would justify, and when we got through that we should then call a halt until the necessity arose for further extension through the western country. We would have our officials on the alert, and they would see when the growing needs and prospects of the country would justify a further extension, and when that time came, then if nobody else entertained it, and even if they did, my idea would be that we should continue our road along; go right along through, go along just as we require to do it in the true interest of the country. Such a railway as I would favor could be used for colonization purposes, of course, and for whatever other western traffic would be attracted over that road—whatever other western traffic would find its way there in preference to seeking an outlet from the head of the lakes. If all that our friends confidently expect and believe with regard to the future prospect of the advantages which would come to the West from that railway is fully realized, so much the better, and we will all be able to appreciate such good results. But we do not know that there is any possibility of such beneficial results; we have no information that would lead us to form an opinion on the matter, and, therefore, I say that the Government may fairly consider whether they ought not to pause in the project which they are asking us to approve.

The points which Mr. Blair said ought to be inquired into are: Is there a feasible, practicable route north of the height of land between Quebec and the prairies? What are

the prospects of settlement, the resources of the territories? Is there good reason to believe there will be local traffic to sustain the road? These and cognate questions should be first asked and inquired into before Parliament is asked to commit itself to a work of this magnitude.

Speaking on Aug. 18, Mr. Borden said he would support the construction of the line as a portion of the Intercolonial Railway; he did not believe in constructing a better line and handing it over to the Grand Trunk Pacific or to any other railway company. They should build a railway that would give the provinces of New Brunswick and Nova Scotia a better fighting chance for getting the trade of the West, but when it was built it should be kept for the people's railway, and operated as a part of that system. Mr. Borden held that the two railways now built between Port Arthur and Winnipeg were capable of handling all the traffic likely to arise for some time to come, while the new road would militate against the Intercolonial. Having expended \$65,000,000 on the Intercolonial Ry. and \$15,000,000 more to secure for it a part of the trade of the West, the Government were about to spend another \$100,000,000 to take all of that trade away from the I.C.R. To extend the Intercolonial Ry. to the shores of the Georgian bay, either by the acquisition of the Canada Atlantic Railway or some other method, was the logical outcome of the extension of the I.C.R. to Montreal. His next proposal was that, in order to connect the two great groups of railway systems in Canada, the eastern and the western, which are joined by the great lakes in summer, but separated by them in winter, the C.P.R. line from Fort William to North Bay should be acquired by the Government, and improved in respect to gradients and curves. This line was capable of carrying five times the traffic it now secured, and he thought it would be a wise and proper thing for the Government to make it a national highway, giving running rights over it to the G.T.P., Canadian Northern, Intercolonial and C.P.R. He said this because it seemed to him that to build two or three railways where one railway, with running powers over it granted to other lines would suffice, was economic waste. This would put the Grand Trunk Railway in direct touch with the commercial life and development of the West within six months. This plan, he was assured by eminent railway men, was entirely practicable as a connecting link between the I.C.R., as he proposed to extend it, and the line to the north of Lake Superior. Mr. Borden suggested that a line might be built from Coteau Junction to Sudbury. Mr. Borden also advocated the improving of the grades of one or both the lines from Fort William to Winnipeg, on condition of complete control of rates, and that the Grand Trunk and I.C.R. should have running powers over that section. He would also assist the G.T.P. on reasonable terms if they guaranteed to build a road north of the C.N.R. and as far west as Edmonton. In conclusion, Mr. Borden said: My proposal, as contrasted with that of the Government; (1) Combines prompt action with deliberation and caution. (2) It develops and does not flatten the Intercolonial. (3) It takes account of the expenditure upon the Intercolonial, and upon the inland waterways, and brings those great national highways in harmony with our project. The lake route, the St. Lawrence and our canals are joined by the policy I propose in one harmonious whole, whereas the policy of the Government cuts off the waterways, cuts off the lake communication, cuts off the very Intercolonial Railway, on which this country has spent \$70,000,000, and on which they have spent \$15,000,000 for the purpose of doing the very thing which I am advocating in this House. (4) It develops

transportation along the lines of least resistance, that is to say, by water and by rail. (5) While connecting at the same time all the great railway systems in Canada, it controls in the only effective way the carriage of Canadian products through Canadian channels, by enabling the people's railway to compete for this traffic. (6) It affords immediately relief to the congestion of the West by bringing the G.T.R. into Winnipeg without delay. (7) It insists that further railway development in the West shall not only give railway competition in settled districts, but shall open and develop new country.

A division on the resolution confirming the agreement with the Grand Trunk Pacific Ry. Co., as set forth in the schedule to the bill, was carried in the House of Commons, Sept. 1, by a majority of 51 votes.

European Passengers via New York.

The New York Central announce that they have perfected arrangements for the checking of baggage for Europe in bond from Toronto and Hamilton to any steamship dock in New York city, and no Customs examination is at all necessary; the baggage being sent direct to steamer. A nominal charge is made for transfer in New York.

Passengers arriving from Europe may check and bond their baggage from steamship dock in New York to any point in Canada, and thus save the annoyance of Customs examinations in New York, and experienced baggagemen have been placed on the piers in New York for the purpose of checking baggage to destination.

This will doubtless prove a source of great satisfaction to patrons of this popular line. Steamship Agents, or L. Drago, Canadian Passenger Agent, will be pleased to give further information.

The Canadian Pacific Railway Company.

NOTICE TO SHAREHOLDERS.

The Twenty-second Annual Meeting of the Shareholders of this Company for the Election of Directors and the transaction of business generally, will be held on Wednesday, the Seventh day of October next, at the principal office of the Company at Montreal, at twelve o'clock noon.

The Common Stock Transfer Books will close in Montreal, New York and London, at 3 p.m. on Tuesday, 1st September. The Preference Stock Books will also close at 3 p.m. on Tuesday, 1st September.

All books will be re-opened on Thursday, 8th October.

By order of the Board,

CHAS. DRINKWATER,

Secretary.

Montreal, 10th August, 1903.

The Canadian Pacific Railway Company.

Dividends for the half year ended 30th June, 1903, have been declared as follows:

On the Preference Stock two per cent.

On the Common Stock three per cent.

Warrants for the Common Stock dividend will be mailed on or about 1st October, to Shareholders of record at the closing of the books in Montreal, New York and London respectively.

The Preference Stock dividend will be paid on Thursday, 1st October, to Shareholders of record at the closing of the books at the Company's London office, No. 1 Queen Victoria Street, London, E.C.

The Common Stock Transfer Books will close in Montreal, New York and London, at 3 p.m., on Tuesday, 1st September. The Preference Stock Books will also close at 3 p.m. on Tuesday, 1st September. All books will be re-opened on Thursday, 8th October.

By order of the Board,

CHARLES DRINKWATER,

Montreal, 10th August, 1903.

Secretary.

A meeting of the Canadian Railway Club will be held in Toronto, Monday, Sept. 7, when a paper on "Apprenticeship" will be read by R. Patterson, master mechanic, G.T.R., Stratford, Ont.

The locomotive and car shops of the Great Northern Ry. of Canada at Quebec were burned down recently, the damage being placed at \$75,000. It has been decided by the management to reconstruct the shops at once.

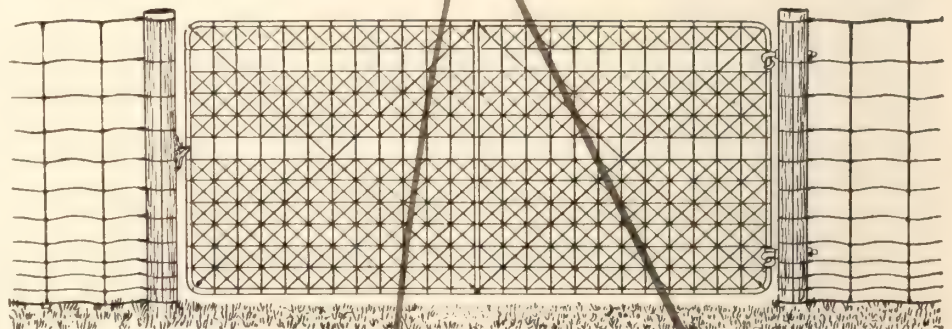
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THE RAILWAY ACT, 1903.

The Railway Act which was introduced in the early part of the session in the House of Commons by Hon. A. G. Blair, then Minister of Railways, was amended in a number of its details in passing through the House, and is undergoing further amendment in the Senate. It is, however, understood that the Act will pass into law before the close of the session. The amendments, under discussion in the Senate, which will have to be considered by the House of Commons, affect the details rather than the general principles of the bill. The act under which the railways of the Dominion are at present administered was passed in 1888, and has been amended in a good many of its details by subsequent acts. The number of these amendments, the increasing number of railways, the great growth of trade, and the changing conditions of railway practice, forced a reconsideration of the whole question of general railway legislation and the act now under consideration is the result.

The new act, on becoming law, will supersede the acts now existing, and will come into force on a day to be named by the Governor-General. With the exception of the Government railways, it will apply to all railway corporations in Canada, and is to be read in with the special act of incorporation of each company. Under existing acts the Government supervision of railways is vested in the Railway Committee of the Privy Council, or in other words a committee of the ministry of the day, and when any question arises touching the relations of railways to one another or to the public, or which calls for the interference of the State, the Railway Committee, acting under the authority of Parliament, hears the argument and passes judgment on the merits. The Minister of Railways is the chairman of this Committee. His colleagues, who have probably snatched a few hours from departmental duties to complete the quorum, are not railway experts and are probably not conversant with the history of the particular question in dispute. They are guided, therefore, in most cases by the views of the Minister of Railways. The committee has no regular meeting time. It waits until a good docket of cases has accumulated, and then it announces a meeting. From Vancouver to Halifax, suitors who have alleged grievances against railways must present themselves at Ottawa on the appointed day. The first thing to be done is to refer the question to a departmental officer to report upon. This, of course, means an adjournment for weeks, perhaps months, while the official makes enquiries on the spot and presents a report to his chief. The committee has by the practice of years evolved a set of unwritten rules which guides it in deciding many points. As a result of this there is a good deal of delay, and inconvenience to the representatives of local municipal authorities, etc. Under the new act the Railway Committee of the Privy Council is abolished, and in its place there is to be established a Board of Railway Commissioners, consisting of three members to be appointed by the Governor-in-Council, at any time after the passing of the act, and from time to time as vacancies occur. Such commission shall be a Court of Record, and have an official seal, which shall be judicially noticed. Each commissioner shall hold office during good behavior for a period of ten years from the date of his appointment, but may be removed at any time by the Governor-in-Council for cause; and shall cease to hold office upon reaching the age of 75 years. Each commissioner on the expiration of his term of office shall be eligible for re-appointment. One of such commissioners shall be appointed, by the Governor-in-Council, Chief Commissioner of the board, and shall be entitled to hold the office of Chief

Commissioner so long as he continues a member of the board; and another of the commissioners shall be appointed by the Governor-in-Council, Deputy Chief Commissioner of the board. In the absence of the Chief Commissioner the Deputy Commissioner shall exercise all the powers of the Chief Commissioner; not less than two shall attend at the hearing of any case; the opinion of the Chief Commissioner is to prevail on questions of law; one commissioner may act in unopposed cases. To ensure the independence of the commissioners from railway influence they must hold no railway stocks, or interest in any device required in the equipment of railways. The commissioners must devote their whole time to the duties of their office, and cannot engage in any other employment. Another feature of the measure which is an innovation is the permission to hold sessions of the board in any part of Canada, as experience or the cases to come before it may suggest. Instead of requiring suitors to come to it the board will be able to go to the suitors. It will probably hold sittings at convenient intervals in the leading cities of the different provinces, and thus facilitate the adjudication of disputes so far as the public is concerned.

An important official of the commissioners is the Secretary, whose duty it shall be "to attend all sessions of the board, to keep a record of all proceedings conducted before the board or any commissioner, to have the custody and care of all records and documents belonging or appertaining thereto, or filed in his office, and to obey all rules and directions which may be made or given by the board touching his duties or the governance of his office; to have every regulation and order made, drawn pursuant to the direction of the board, signed by the Chief Commissioner, sealed with the official seal, and filed in the office of the Secretary. He shall keep in his office suitable books of record, in which he shall enter a copy of every such regulation and order, and every other document which the board may require, and such entry shall constitute and be, and in all courts be deemed and taken to be, the original record of any such regulation or order. Upon application of any person, and on payment of such fees as the board may prescribe, the Secretary shall deliver to such applicant a certified copy of any such regulation or order."

The board shall have power to inquire into, hear and determine any application by any person interested, making complaint that a railway company has failed to do anything it is required to do by the Railway Act, or its special act of incorporation; or requesting the board to make orders upon any matter within its jurisdiction. In respect to all of such matters the board has all the powers of a Superior Court; and may inflict penalties in the shape of fines for the non-compliance with its orders. Among the matters which the commissions are specifically authorized to decide are the speed of trains within the limits of a municipality, the use of whistles, the shelter of employees, coupling of cars, passing from car to car, devices on engines to avoid fire, for protection generally, and with respect to "any matter, act or thing which by this or the special act is sanctioned, required to be done or prohibited." It will thus be seen that the board is given very wide powers, and, inasmuch as it may on its own motion inquire into any of these matters, and may make orders in respect thereto, the board and its officials will be enabled to exercise a very thorough supervision over the railways.

The decisions of the board on matters of fact are to be final (Sec. 44), saving the right of review by the Governor-in-Council; but in matters of jurisdiction and of law appeals may be carried to the Supreme Court. Section 44, sub-sec. 2, provides that "the Governor-in-

Council may at any time, in his discretion, either upon petition of any party, person or company interested, or of his own motion and without any petition or application therefor, vary, change, or rescind any order, decision, rule, or regulation of the Board, whether such order or decision be made inter partes or otherwise, and whether such regulation be general or limited in its scope and application, and any order which the Governor-in-Council may make with respect thereto shall be binding on the Board and all parties." The members of the Board are not liable for costs, on account of any appeal, and the costs of all proceedings before the Board may be fixed at a stated sum, or taxed, and an order made by whom and to whom they are to be paid.

The act lays down a regular code of procedure for the Board, giving it power to review decisions and orders of the Railway Committee of the Privy Council, and to incorporate any or all of the same in its orders, or to repeal them, but all the orders of the Railway Committee of the Privy Council are to be considered to be in force until repealed.

The sixth division of the act deals with the incorporation and organization of railway companies, and covers points common to all railway undertakings. In the various clauses of this division of the act elaborate rules are made for the government of the railways. These rules touch upon the expropriation of property for railway building; the drainage of railway and farm lands, the building of bridges, tunnels, etc., the providing of efficient cattle-guards and crossings, and, in fact, a great variety of conditions that arise in connection with railway construction and operation. Many of these are adaptations of the existing law. The section as to charges provides that no tolls can be charged until after the approval of a by-law by the Board, and that such tolls may be either for the whole or any particular portions of the railway, but shall be chargeable equally to all persons, and at the same rate, for substantially the same service. Tolls must be made proportionately less for shorter hauls. No toll will be permitted that "unjustly discriminates" between different localities. Pooling of earnings is prohibited. All companies are required to afford reasonable facilities for forwarding and delivering traffic without unreasonable delay. The board will endeavor to make all classifications of freight similar in Canada.

The railway companies have made representations to the Senate Committee in regard to a number of the provisions of the bill, and these are under consideration.

Dividend Declared on "Soo" Line.

The Board of Directors of the Minneapolis, St. Paul and Sault Ste. Marie Ry., a subsidiary of the C. P. R., met in Minneapolis Aug. 21, and declared a dividend on stock for the calendar year 1902. The dividend on preferred is 7% and on common 2%. This is the first time in the history of the road that a dividend has been declared on common stock.

The statement submitted to the New York stock exchange read: "Beginning with surplus of \$660,880 on hand June 30, 1900, we have earned, including surplus up to June 30, 1903, \$4,239,752. From this we have deducted \$289,022 for improvements to constructed lines, leaving net surplus of \$3,950,730. We have advanced for construction of new lines and for new equipment (pending issue of bonds) \$1,923,027. We had on hand June 30, 1903, after payment of fixed charges, cash assets \$1,893,625, and in other current assets over current liabilities, \$530,708.

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Export Elevator, Buffalo, N.Y.....	".....	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario.....	".....	1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas.....	".....	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.....	".....	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.....	".....	1,500,000 "
Burlington Elevator Co., Peoria, Ill.....	".....	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.....	".....	500,000 "
Northern Grain Co., Manitowoc, Wis.....	".....	1,350,000 "
Union Elevator, East St. Louis, Ill.....	".....	1,100,000 "
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TERMS OF PAYMENT.

An actual settler may purchase 640 acres, or less, on the 10 payment plan, by which the aggregate amount of principal and interest is divided into a cash instalment to be paid at the time of purchase and nine equal deferred instalments annually thereafter, as follows:

160 acres at \$4.00 per acre, 1st instalment \$95.85, and 9 equal instalments of \$80.
160 acres at \$4.50 per acre, 1st instalment \$107.85, and 9 equal instalments of \$90.
160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

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Land Commissioner C.P.R. Co.,
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New Montreal Locomotive Works.

The shops of the Locomotive and Machine Co., of Montreal (Ltd.), were expected to be completed by Sept. 1. The shops are located about two miles east of Montreal, on a strip of land between the St. Lawrence river and the Montreal Terminal Ry. A large wharf and pier is to be built along the river so as to increase the shipping facilities. This will give a through water route to Europe as well as connection with the Great Lakes system of this continent.

The ultimate capacity of the works will be about 300 locomotives a year. The company will also do a general business in machine and structural work, steel buildings, bridges, roof trusses, etc.

All the steel work has been manufactured on the ground, and the design and erection has been under the direct supervision of M. J. Butler, Chief Engineer. A temporary shop containing the machinery for handling the structural material has been built. Most of the building material was bought in Europe. The duty rates were largely responsible for this, although the fact that material could be obtained quickly was also a determining factor. The duty between the United States and Canada on steel shapes weighing less than 35 lbs. per yard is 35 cents per 100 lbs., and on shapes weighing 35 lbs. per yard or over, the duty is 10% of the value of the material. Between England and Canada there is a preferential duty one-third less than that above noted. It is also interesting to know that the duty between Canada and the United States is 60 cents per 100 lbs. on all sizes. These rates make it advantageous for Canadians to purchase raw material in England, and it also gives Canadian builders a chance to compete with builders in other parts of the British Empire.

The plant consists of a machine shop about 420 ft. x 132 ft., a foundry 220 ft. x 65 ft. 5 in., a boiler shop 380 ft. x 67 ft., an erecting shop 340 ft. x 66 ft., a smith and forge shop 340 ft. x 66 ft., a two-story pattern shop 109 ft. x 63 ft., a pattern store house 109 ft. x 63 ft., and a power house 105 ft. x 71 ft. A structural shop about 310 ft. x 198 ft. is also to be built. It is also intended, at some future date, to build a steel castings shop. The general store house and offices are at the southern end of the grounds.

The machine shop, boiler shop, foundry, erecting shop and smith shop are arranged in a group—the machine shop extending north and south, and the other shops connecting with it to the west. The machine shop is arranged so that the several departments are close to the shops from which the material is sent. For instance, the frame department is at the south end of the machine shop, close to the smith shop, and the cylinder department is at the north end of the shop close to the foundry. The power house has a central location.

A large reservoir is at the north end of the property, and the drainage from the roofs of all the buildings flows into it. A 1,000 gal. pump is in the engine house and furnishes the water supply to the several buildings—the suction pipe coming from the above-mentioned reservoir. A rotary pump having a capacity of 700 gallons a minute is placed near the St. Lawrence river, and is run by a motor. In dry weather this pump draws water from the river and delivers it to the reservoir. Drinking water is obtained from an artesian well.

The area (in square feet) of the several principal buildings, is given by the following table:

Machine shop.....	55,440
Erecting shop.....	22,440
Foundry.....	14,388
Boiler shop.....	25,460
Smith shop.....	22,440
Total.....	140,168

The machine shop is by far the largest department, while the boiler shop is next in size. It will also be noted that the area of the erecting shop is relatively small. This large surplus of machine shop area was purposely provided, the feeling being that delays can usually be traced to the machine shop. A surplus of erecting pits is a useless expense unless the machine shop and other departments are able to furnish material as quickly as it can be assembled.

POWER HOUSE.—The power house is divided into two parts by a 2 ft. partition wall. The boiler room is 50 ft. x 74½ ft. inside, and the engine room is 49 ft. x 67 ft. The boiler room contains four 250 h.p. boilers, set in two batteries of two each. The boilers are fitted with underfeed stokers, and an induced draft system is used. The boilers were made in Glasgow, Scotland. They are designed to operate at 200 lbs. pressure, and are provided with superheaters which deliver steam at a temperature of about 450 deg. F.

The engine room contains one 18 in. and 34 in. x 42 in. compound condensing engine. It is belted to a 400 k.w. direct current generator. The three-wire system is used, giving two voltages of 110 and 220 respectively. Surplus power is supplied by the Montreal Light, Heat & Power Co., and a motor generator set has been installed in the engine room for transforming and stepping down the high potential a.c. current from the power company's line. Two air compressors will be installed. They will have capacities of 2,000 ft. and 1,250 ft. a minute respectively.

MACHINE SHOP.—The machine shop is 420 ft. long, and is divided longitudinally into two bays, each 66 ft. wide. The clear height under the roof trusses is about 29 ft. The trusses are 8 ft. 4¾ in. deep at the centre. The roof of each bay is surmounted by a monitor running the length of the shop. Additional overhead lighting is obtained from skylights placed at intervals in the roof. Each bay is traversed by a 10-ton electric travelling crane, having a span of 62 ft. 8½ in. The crane runways are supported on brackets riveted to the supporting columns. The general design of the steel work for all the buildings is practically the same. In addition to the travelling crane, there are about 26 jib cranes, with air hoists distributed throughout the shop. The capacity of these hoists range from 1,500 lbs. to 8,000 lbs.

FOUNDRY.—The foundry is 220 ft. x 65 ft. 5 in. A 15-ton crane having a span of 40 ft. serves the molding floor. The inside runway of this crane is supported on steel columns. Air blast is supplied from a structural steel pressure blower running at a maximum speed of 1,990 r.p.m. The blower is driven by a 60 h.p. motor, running at 675 r.p.m. The brass foundry is at the east end of the building on the second floor.

BOILER SHOP.—The boiler shop is 380 ft. x 66 ft. 10¼ in., and is served by a 20-ton electric travelling crane having a five-ton auxiliary hoist. The span of the crane is 63 ft. 5¾ in. The riveting tower is at the east end of the shop. The rails rest on 10 in. x 10 in. timber sleepers. Standard gauge tracks run along each side of the erecting pit. The paint shop is on an elevated floor at the east end of the building. The shop is served by two 60-ton electric travelling cranes having each a span of 65 ft. 6¾ in. The general details of the steel work are the same as those of the other shops, except that the clear height under the trusses is 42 ft. 9 in.

SMITH AND FORGE SHOP.—This shop is 340 ft. x 66 ft. 4½ in. The shop is not provided with a travelling crane, but has a liberal supply of air hoist jib cranes, which cover practically the entire floor area.

There are altogether about 100 Westinghouse motors throughout the shops, ranging from 5 to 60 h.p. All lathes and small tools are arranged in groups approximating 20 h.p.

each. All large and isolated tools have an individual motor drive.

There are a number of interesting tools being furnished these shops. The 84 in. x 84 in. x 36 in. planer is arranged to have a 32 h.p. motor mounted on top of the housing.

The 24 in. crank-pin lathe weighs about 7,250 lbs. Both the back gear and triple gear are at the front of the lathe, thus bringing all stresses on the bottom of the bearings. The ratio of back gearing is 8.52, and the ratio of the triple gearing to the face plate is 31.8. The carriage is 34 in. long and has two plain block rests, with clamping bolts for the tools. Each rest has a separate cross feed, operated either by hand or power, thus enabling the operator to cut both from the back and front of the work, each cut supporting the other.

Another interesting machine is the large vertical miller. It is claimed to be the largest vertical milling machine ever built for locomotive work, and is intended mainly for the guide yoke work. A stack of guide yokes can be clamped on this table and finished without resetting. The crane, which is provided, swings on the centre of the spindle. The carriage of the machine is 60 in. in diameter over tee slots. The machine will admit work 24 in. high, and the carriages have a cross feed of 65 in., and an in-an-out feed of 50 in. The spindle is counter-weighted and can be quickly adjusted. The shipping weight of the machine is about 60,000 lbs.

The fans for the heating apparatus are in a wing to the machine shop. The air is delivered to underground ducts, and the discharge pipes have three openings, discharging upward and along the sides of the walls respectively.

The company is capitalized at \$1,000,000, and has the following officers: M. J. Haney, President; J. T. Davis, Vice-President and General Manager; R. T. Shea, General Superintendent; M. J. Butler, Chief Engineer, and D. Shirrell, Mechanical Engineer.

We are indebted to R. T. Shea, General Superintendent, for the details of the above description.—*Railroad Gazette.*

Grain Shipments from Montreal.—The lake shipments of corn for the port of Montreal have increased considerably in the past few weeks. For a longer period—during the first seven months of the present year—over 9,000,000 bushels of wheat and almost 4,000,000 bushels of corn have passed through the port of Montreal, as against a trifle over 1,000,000 bushels of wheat and 4,000,000 bushels of corn through the port of Boston. This gain at this Canadian exporting port is due almost entirely to the action of the Dominion Government in making the Canadian canals free. Grain can now be shipped from Chicago to Montreal for export to Liverpool 3 cents a bushel cheaper than it can be routed by part-rail part-lake through Boston. When it is known that a fraction of a cent a bushel will divert all the grain that can possibly go through a port, the advantage that Montreal has over American ports will be readily seen.

The Toronto Ry. Co. has installed magnetic switches at several of the junction points, which are reported to be operating successfully. These switches will obviate the necessity of employing men at the junctions to shift the points.

A new steamboat line is to be established between Ottawa and Rockland, Ont., by Alphonse Prevost, of the latter place, who has purchased a passenger-freight steamer for \$4,000.

Mackenzie, Mann & Co. are reported to be negotiating for the purchase of the Cape Breton Ry., which has been completed for 30 miles from Point Tupper to St. Peters, N.S.

The Hamilton, Ont., city council has signed the new agreement with the Bell Telephone Co.

MAINLY ABOUT PEOPLE.

E. O'Neill, C.P.R. freight agent at Brockville, Ont., died there Aug. 1, after a lengthened illness.

W. H. D'Arcy, C.P.R. claims agent, lines west of Lake Superior, is absent in England on a holiday.

J. O. Stackhouse, for many years a prominent shipbuilder at Carleton, N.B., died there Aug. 19, aged 75.

T. Heasman, formerly foreman at the C.P.R. coach yard at Winnipeg, died at Fort William, Ont., Aug. 16.

A. Piers, General Superintendent C.P.R. steamships, has returned to Montreal from a business trip to England.

W. Mackenzie, President of the Canadian Northern Ry., has returned to Toronto from a business trip to England.

J. S. Vindin, for eleven years construction engineer of the Montreal Street Ry., died at Montreal Aug. 19, aged 45.

C. J. Parker, Chief Engineer Rutland Rd., has resigned his position and has joined the staff of the New York Central Rd.

Capt. C. Garvin, of the Dominion Government str. Alert, died suddenly on board the steamer at Cornwall, Ont., Aug. 17.

T. McHattie, Master Mechanic eastern division G.T.R., Montreal, has returned from Scotland, where he has been on a holiday.

L. R. Johnson, Assistant Superintendent of Rolling Stock, C.P.R., accompanied by Mrs. Johnson, are spending a holiday in England.

J. W. McCarthy, Roadmaster G.T.R. Battle Creek, Mich., was killed in a rear-end collision on the G.T.R. at Durand, Mich., Aug. 7.

P. A. Peterson, formerly Chief Engineer C.P.R., has returned to Montreal after an extended visit to Cuba, where he inspected the Cuba Rd.

Miss Pettypiece, daughter of H. J. Pettypiece, President Canadian Press Association, and C.P.R. Ticket Agent, Forest, Ont., died there recently.

J. W. Noble, cashier Canadian Express Co., Hamilton, Ont., has been sent for trial on a charge of stealing \$2,000 while in transit to San Francisco, Cal.

W. J. Singleton, Superintendent C.P.R. Terminals, Montreal, who was absent from his post for some time on account of ill health, has resumed duties.

Thomas Coyle, of Winnipeg, who died recently, was father of E. J. Coyle, Assistant

General Passenger Agent C.P.R., Pacific Division, at Vancouver, B.C.

W. F. Egg, C.P.R. city ticket agent, Montreal, is recovering slowly from his recent attack of illness. During his absence P. J. Cullen is acting city ticket agent.

S. Behan, recently locomotive foreman at the C.P.R. shops, Toronto Junction, Ont., was recently entertained at dinner by his friends on giving up that position.

E. E. Fisher, Superintendent, Toronto, Hamilton and Buffalo Ry., has purchased the house at 275 James st. South, Hamilton, recently occupied by Lieut.-Col. McLaren.

C. C. Brown, formerly a train dispatcher for the C.P.R. at North Bay, Ont., has been appointed to a position on the dispatching staff of the Missouri Pacific railway system.

C. M. Hays, 2nd Vice-President and General Manager G.T.R., will, it is understood, be elected President of the Grand Trunk Pacific Ry. Co. as soon as the organization is effected.

D. B. Hanna, Third Vice-President Canadian Northern Ry., visited Winnipeg recently, and on returning to Toronto was accompanied by Mrs. Hanna and family, where they will now reside.

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First-Class Tugs for Wrecking, Raft Towing, Etc. Steam Pumps, Divers, Jacks, Hawsers and Lighters.

G. Yallop, for 20 years C.P.R. yardmaster at Toronto Junction, Ont., was entertained at dinner and presented with a purse by C.P.R. employees Aug. 19, on the occasion of his removal to Winnipeg.

Alex. Johnston, who retired from the C.P.R. service in Montreal to take a position on Sir Wm. Van Horne's Cuban railway, recently sailed for England, on leave of absence on account of ill health.

R. Kerr, Passenger Traffic Manager C.P.R., is on a trip to Great Britain in connection with the rearrangement of the company's agencies there, consequent on the taking over of the Atlantic steamers.

H. R. Charlton, Advertising Agent G.T.R., was presented with a cabinet of silver cutlery by the members of the Western Press Association, at the termination of a recently personally conducted tour over G.T.R. territory.

J. E. Dawson, agent of the Great Northern Ry. at Butte, Mont., who died at Butte recently, was about 1874 Superintendent of the Air Line at St. Thomas, Ont., and later on was Assistant Superintendent G.T.R., in London, Ont.

The name of Wm. Whyte, assistant to the President C.P.R., Winnipeg, is mentioned in connection with the position of chairman of the Railway Commission to be appointed by the Government. The position will be worth \$10,000 a year.

T. Williams, Chief Accountant and Treasurer Intercolonial Ry. at Moncton, N.B., has completed 30 years of service on the Canadian Government railways. The first 6½ years of his service was put in on the Prince Edward Island Ry.

T. A. Summerskill, Superintendent of Motive Power Central Vermont Ry., St. Albans, Vt., has fully recovered from the effects of the shots he accidentally received from a neighbor who came in to assist in the capture of a burglar at his residence.

Alex. McFee, ex-President of the Montreal Board of Trade, Montreal, has been elected a member of the Montreal Harbor Commission to represent the Corn Exchange Association, in succession to J. Torrance, Manager of the Dominion Line, whose term has expired.

D. McDonald, who has been appointed assistant General Manager of the Montreal Street Ry., and the Montreal Park and Island Ry., was formerly in the company's service, but for the past three years has been connected with the electric railway system in Paris, France.

The International Longshoremen, Marine and Transport Workers' Association has elected officers, the Canadian representatives among the Vice-Presidents being: J. McLaughlin, Sarnia, Ont., and L. Montmarquette, Montreal. There are nine Vice-Presidents, the Canadians being respectively fourth and fifth.

Sir Daniel Dixon, Lord Mayor of Belfast, Ireland, who was created a baronet during the late visit of the King to Ireland, was created a Knight Bachelor in 1892, being the first Lord Mayor of the city. He is principal owner of the Lord Line of steamers trading between Cardiff and other British ports and Montreal, and owns several sailing vessels trading between Belfast and New Brunswick ports, in which province his firm have large lumber interests.

Morley Donaldson, whose portrait appears on the first page of this issue, was born near Edinburgh, Scotland, May 1, 1851, and entered railway service 1881, as chief draftsman Canada Atlantic Ry., since which he has been consecutively superintendent traffic, superintendent mechanical department, Superintendent, and since April 11, 1898, General Superintendent, entire service with the

Canada Atlantic Ry. He is a member of the Canadian Society of Civil Engineers.

S. B. Kramer, who has been appointed Master of Transportation G.T.R., was born in Maryland Sept. 25, 1865, and entered railroad service 1880, since which his record has been: 1880 to 1886 as messenger boy and operator on the Vandalia Line, in Indiana; 1886 to 1893, train dispatcher Union Pacific Rd.; 1893 to 1899, Chief Train Dispatcher Wabash Rd. at Decatur, Ill.; 1899 to May, 1902, Chief Train Dispatcher Central Vermont Ry.; May, 1902, to Aug., 1903, Chief Train Dispatcher G.T.R. at Montreal.

The New York Times recently printed the following: Sir William Van Horne, chairman of the Canadian Pacific Railroad, was interviewed in New York not long ago by a young gentleman who insisted on treating him like a foreigner. The Montreal capitalist took it as a matter of course until the interviewer asked innocently: "Did you ever have anything to do with our American railroads, Sir William?" The good knight's eyes sparkled as he answered: "Oh, yes. I served on both Alton and Illinois Central." "In what office?" asked the scribe, with pencil ready. "I sold books on Alton and oranges on Illinois Central," said the chairman of the Canadian Pacific quietly; "but that was some little time ago."

David Brown, who has been appointed Manager of the Milwaukee and Michigan Line and the Grand Trunk Despatch at Detroit, Mich., was born at Glasgow, Scotland, Dec. 21, 1843, and entered railway service with the Caledonian Ry. in Scotland, Jan. 1, 1855, serving in various positions to Feb. 28, 1866; since which his record has been: 1866 to 1872, chief clerk general freight department G.T.R. at Montreal; 1872 to July, 1874, General Freight and Passenger Agent, Illinois Midland Rd.; Aug., 1874, to Mar., 1880, Division Freight Agent, Central Vermont Rd.; Mar., 1880, to Dec., 1891, assistant General Freight Agent Chicago and Grand Trunk Ry.; Jan., 1892, to Nov., 1900, General Freight Agent Chicago and Grand Trunk Ry., Cincinnati, Saginaw and Mackinaw Rd., Michigan Air Line, and Detroit division G.T.R.; Dec., 1900, to July 31, 1903, first assistant General Freight Agent, G.T.R., the Chicago and Grand Trunk having been reorganized under the name of the G.T. Western Ry., and is now operated as a part of the G.T.R. system.

Dominion Express Co.

A special circular was issued Aug. 29, from the office of W. F. Stout, Vice-President and General Manager, Toronto, notifying the rearrangement of the territory within which the Company operates into divisions, with superintendents in charge. The following is the new arrangement of territory:—

EASTERN DIVISION.—J. A. Boswell, Superintendent, headquarters at Montreal, Que.; Route Agents—G. E. Whitney, G. W. Liddle and J. R. Haycock. Effective Sept. 1, 1903. The territory comprises all offices on lines of C.P.R. between Ottawa, Ont., and Sault Ste. Marie, Mich., inclusive; between Montreal, Que., and Smith's Falls, Ont., inclusive; between Renfrew, Ont., and Eganville, Ont., inclusive; between Vaudreuil, Que., and Ottawa, Ont., inclusive; between Ottawa, Ont., and Prescott, Ont., inclusive; between Carleton Jct., Ont., and Brockville, Ont., inclusive. Brockville, Westport and Sault Ste. Marie Ry., between Brockville, Ont., and Westport, Ont., inclusive. Green Valley and Alexandria Wagon Route; Vankleek Hill and Hawkesbury Wagon Route; all offices in Provinces of Quebec, New Brunswick, Nova Scotia and the States of Maine and Vermont.

ONTARIO DIVISION.—Employees in this division will report direct to W. S. Stout, Vice-President and General Manager, Toronto. Route Agents—C. A. Dobson, F. G. McKay and D. J. McFeggan. Effective Sept. 1, 1903. Will comprise all offices of this company on lines of C.P.R. west of, but not including Smith's Falls, Ont., to and including Detroit, Mich. All offices on Kingston and Pembroke Ry., not including Renfrew, Ont.; Bay of Quinte Ry.; Central Ontario Ry.; Deseronto Navigation Co., between Deseronto and Picton, Ont.; Ivanhoe and Madoc Wagon Route; Ivanhoe and Foxboro Wagon Route; Norwood, Hastings and Warkworth Wagon Route; Picton and Milford Wagon Route; Picton and Northport Wagon Route; Myrtle, Brooklin, Whitby and Oshawa Wagon route; Havelock and Campbellford Wagon Route. All offices on railway, steamer or wagon routes, south or west of Toronto, including Niagara District, Owen Sound, Teeswater, Wingham, and Elora sections.

WESTERN DIVISION.—G. Ford, Superintendent, headquarters at Winnipeg, Man. Route Agent, John Knox. Effective Sept. 1, 1903. Will comprise all offices of this company on main line of C.P.R., west of, but not including Sudbury Jct., Ont., and east of, but not including Pasqua, Assa. All offices of this company in Province of Manitoba. Offices on C.P.R. in Assiniboia, between Gainsboro and Estevan, inclusive; between Antler and Arcola, inclusive; between Langenburg and Yorkton, inclusive. All offices on Regina and Prince Albert section. All offices in Rainy River District.

PACIFIC DIVISION.—S. T. Stewart, Superintendent, headquarters at Vancouver, B.C. Route Agents—R. E. Helme and A. W. Lee. Effective Sept. 15, 1903. G. Ford, Superintendent, will continue in charge in the meantime. Will comprise all offices on C.P.R. between Moose Jaw and North Portal, Assa., (not including Estevan, Assa.,) and all offices on all railway, steamer or wagon routes west of Moose Jaw, Assa.

The Pan-American Trunk Line.

Further details respecting the projected line from Hudson's Bay to Buenos Ayres are published. The Railway World, of New York, says: "Another great railroad scheme, proposed as a trunk line to connect Hudson's Bay with British Columbia, Buenos Ayres, South America, and having a network of branches, was launched the past week when articles of incorporation of the Pan-American Railroad Company, with a capital stock placed at \$250,000,000, were filed at Guthrie, Oklahoma, with the Secretary of that Territory. The purpose of the corporation, it is said, is to build a line of railway extending from Port Nelson, Hudson's Bay, in a southerly direction, crossing the line of the Canadian Pacific, near Winnipeg, Manitoba, through North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Indian Territory to Galveston, Texas; from Galveston through the Republic of Mexico to the boundary line of Central America, through the isthmus of Panama, thence through the United States of Columbia to Ecuador, and finally through the Republic of Peru to Buenos Ayres on the Atlantic ocean. Also a branch line beginning in the Republic of Peru and extending in a southeasterly direction through Brazil to Rio de Janeiro; also a branch line beginning in the Republic of Peru and extending in a southerly direction through Chili to Valparaiso, on the South Pacific ocean.

"The estimated cost of the Pan-American Railway is \$250,000,000 and the estimated length 10,000 miles. The incorporators are: W. H. Dodge, Stephen A. Sheldon, W. J.

Pendleton, Eldredge G. Phelps, of Shawnee, Oklahoma, and C. E. Wells, of Lincoln, Neb. It is not known what outside interests, if any, these men represent. The principal offices of the company are stated to be at Guthrie and Shawnee, Oklahoma. Within the corporation of the Pan-American Railway Company will, it is said, be several construction companies. The largest of these will be the Canadian-American Construction Company, among whose directors are said to be Charles F. Beach, Jr., London, England; M. L. Muhleman, New York; Charles L. Rawlins, New York, and Charles B. Williams, City of Mexico. These directors will, it is stated, hold in a general way for the other companies. A charter was also taken out for the American Town Site Company, an adjunct of the railway corporation, with a capital stock fixed at \$10,000,000 and with business offices at Shawnee and Guthrie, Oklahoma; New York City; Superior, Neb.; Hutchinson, Kan.; Dallas and Galveston, Texas; Winnipeg, and City of Mexico.

Detroit and Toledo Shore Line R.R. The organization of this railway, which has recently been acquired by the G.T.R. and the Toledo, St. Louis and Western R.R., has been completed. The directors and officers are: President, C. M. Hays, Montreal; Vice-President, B. Norton, Toledo, Ohio; other directors: C. D. Whitney, Toledo, Ohio; Jas. L. Frazier, Frankfort, Ind.; F. W. Morse

Montreal; A. B. Atwater, Detroit, Mich.; Executive Committee: F. W. Morse, B. Norton; Secretary and Treasurer, J. H. Muir, Detroit, Mich.; Superintendent, S. W. Knapp, Detroit, Mich. The Superintendent will report to the Executive.

Reports are current that the G.N.W. Telegraph Co. is about to be absorbed by the Western Union Telegraph Co., but H. P. Dwight, President, says this is not the case, and that the G.N.W. will remain a Canadian company.

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Leyland Line.

BOSTON — LIVERPOOL.

Sailing from Boston on Wednesdays.

Red Star Line.

NEW YORK — ANTWERP — PARIS.

Sailing from New York, Saturdays, at 10 a.m.

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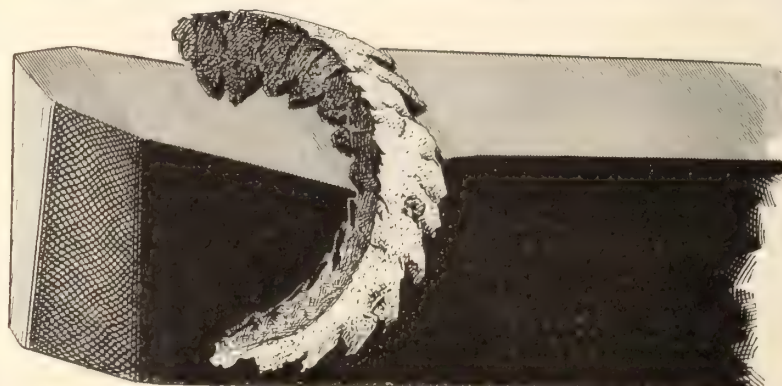
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G.T. Ry. Co. Guaranteed Stock.

By the terms of the act passed at the current session of the Dominion Parliament authorizing the increase of the 4% guaranteed stock to £10,000,000, a special meeting of the shareholders was held in London, Eng., Aug. 24. The President, Sir C. Rivers Wilson, outlined the reasons for the act, which provides for an increase of the 4% guaranteed stock from the present authorized amount, £5,200,000, to £10,000,000. The directors recommended the acceptance of the proposal, to enable the capital expenditure of the company to be provided as was found necessary, without having recourse to the issue of perpetual 4% debenture stock, as heretofore, thereby obviating additions to the fixed interest charges of the company. The directors felt that it was not desirable to create more fixed charges, and the new issue would strengthen the junior securities.

The resolution was adopted with but one dissentient voice.

There was no mention of the Grand Trunk Pacific project at the meeting.

Another report states that after the meeting the President denied specifically that the money would be employed in the work of extending the road to the Pacific. The shareholders expect that steps will be taken to acquire a Canadian port as an Atlantic terminal, instead of Portland, Me.

The Railway Commission.—In connection with the appointment of the permanent Railway Commission to be established under the Railway Act, 1903, a resolution has been proposed fixing the salaries of such commissioners. The Chief Commissioner will be paid \$10,000 a year, and the other two Commissioners \$8,000 a year each, while the Secretary will receive \$4,000 a year. Power is given to the Governor-in-Council to fix the salaries of such other officers as may be necessary to the carrying out of the provision of the act. The commissioners have power to hold sittings at such points as may be convenient for the discharge of the business to come before them.

R. Reford, of Robert Reford & Co. (Ltd.), steamship agents, Montreal, has been nominated, and is reported to have accepted the position of chairman of the Government commission on transportation. The other members of the commission are J. Bertram, of Toronto, shipbuilder and engineer; and R. B. Fry, of Quebec, a shipper.

The Acting Minister of Railways stated in the House of Commons that in 1896 the Government owned four private cars. This number has since increased to six. One of these new cars is for the general traffic manager of the I.C.R. The other is the car built for the Duke and Duchess of York.

H. G. Johnston, a former clerk in the C.P.R. audit office at Montreal, and P. Carlin, the ex-conductor, who were sentenced to terms of imprisonment for conspiracy by giving out private information as to when audits would be made on passenger trains, have been released on ticket-of-leave.

The Canadian Northern Ry. has issued a folder of information for tourists, "East and West, via the Great Lakes." It is well illustrated and gives information respecting a number of round trips through Western Ontario, and the prairie country opened up by the company's lines.

The Manual of Statistics is issuing a monthly supplement in which the reports of railway and industrial securities issued during the preceding month are dealt with. By this means subscribers to the annual issue will be able to keep their information up to date.

Recent Dominion Legislation.

A further instalment of legislation has received the assent of the Governor-General at the current session of the Dominion Parliament. Among the acts assented to Aug. 13 were the following affecting transportation interests:

Incorporating the Guelph and Georgian Bay Ry. Co.

Respecting the Kettle River Valley Ry. Co.

Respecting the Kingston and Pembroke Ry. Co.

Incorporating the Marconi Wireless Telegraph Co. of Canada.

Incorporating the Algonquin Lumber and Power Co.

Respecting the Manitoulin and North Shore Ry. Co.

Respecting the Western Alberta Ry. Co.

Respecting the Midway and Vernon Ry. Co.

Incorporating the Columbia River Improvement Co.

Respecting the Toronto, Hamilton and Buffalo Ry. Co.

Incorporating the Canada Yukon Western Ry. Co.

Respecting the Brandon and Southeastern Ry. Co.

Amending the act respecting the safety of ships.

Amending the act respecting the city of Ottawa.

Amending the Steamboat Inspection act.

Respecting the Rathbun Co.

Incorporating the Montreal - Longueuil Bridge Co.

Incorporating the Niagara, Queenston and St. Catharines Ry. Co.

Incorporating the Berlin, Waterloo, Wellesley and Lake Huron Ry. Co.

Respecting the Medicine Hat and Northern Alberta Ry. Co.

Respecting the Red Deer Valley Ry. and Coal Co.

Respecting the encouragement of the construction of dry docks.

September Birthdays.

Many happy returns of the day to

W. D. Barclay, ex-Manager, Alberta Ry. & Coal Co. and Great Falls and Canada Ry., now a contractor at St. Paul, Minn., born at Campbellton, N.B., Sept. 23, 1852.

G. T. Bell, General Passenger and Ticket Agent, G.T.R. at Montreal, born there Sept. 7, 1861.

W. H. Biggar, K. C., Assistant General Counsel G.T.R. at Montreal, born at the Carrying Place near Trenton, Ont., Sept. 19, 1852.

E. R. Bremner, Assistant General Freight Agent, Canada Atlantic Ry., Ottawa, born in Toronto, Sept. 9, 1875.

F. R. F. Brown, ex-Mechanical Superintendent, Intercolonial Ry., now at Montreal, born at Helensburgh, Dumbartonshire, Scotland, Sept. 29, 1845.

M. H. Brown, General Freight Agent, C.P.R., at Toronto, born at Victoria Square, Ont., Sept. 2, 1866.

W. G. Brownlee, Superintendent, G.T.R., Western Division, at Detroit, Mich., born at Lawrenceville, Ill., Sept. 9, 1858.

J. R. Bruce, Traffic Auditor, Intercolonial Ry., at Moncton, N.B., born at Portsoy, Banffshire, Scotland, Sept. 23, 1848.

W. B. Bulling, Assistant General Freight Manager, Eastern Lines C.P.R., at Toronto, born in Montreal, Sept. 16, 1858.

R. L. Burnap Commercial Agent, Central Vermont Ry., and Agent, National Despatch Fast Freight Line at New York, N.Y., born Sept. 20, 1872.

G. B. Colpas, Auditor, New York & Ottawa Rd., and Ottawa & New York Ry. at Ottawa, Ont., born Sept. 28, 1858.

W. F. Egg, City Passenger Agent, C.P.R., at Montreal, born at Plymouth, Eng., Sept. 7, 1859.

A. W. Ecclestone, Southern Passenger Agent, Central Vermont Ry., at New York, born at Hamilton, Ont., Sept. 25, 1858.

F. A. Folger, Jr., General Superintendent, Kingston & Pembroke Ry., at Kingston, Ont., born Sept. 17, 1865.

C. B. Foster, District Passenger Agent, C.P.R., at St. John, N.B., born at Kingston, N.B., Sept. 30, 1874.

L. A. Hamilton, ex-Land Commissioner, C.P.R., born at Penetanguishene, Ont., Sept. 30, 1852.

L. B. Howland, President and General Manager, Irondale, Bancroft & Ottawa Ry., at Irondale, Ont., born at Lambton Mills, Ont., Sept. 2, 1869.

G. R. Huntingdon, General Superintendent, Minneapolis, St. Paul & Sault Ste. Marie Ry., at Minneapolis, Minn., born Sept., 1867.

W. H. Kelson, General Storekeeper, C.P.R., born at Bath, Eng., Sept. 5, 1850.

R. E. Larmour, Freight Claims Agent, Pacific Division, C.P.R., at Vancouver, B.C., born at Brantford, Ont., Sept. 26th, 1868.

H. D. Lumsden, C.E., engineering department, C.P.R., born at Belhaire, Scotland, Sept. 7, 1844.

J. McNaught, Second Vice-President, Great Northern Ry. of Canada, New York, born at Lexington, Ill., Sept. 9, 1842.

G. S. MacKinnon, Division Master Mechanic, C.P.R., at Winnipeg, Man., born at Melbourne, Que., Sept. 16, 1854.

H. L. Maltby, Secretary and Treasurer, Ottawa, Northern and Western Ry., at Ottawa, born at Derby, Eng., Sept. 8, 1852.

G. A. Mountain, Chief Engineer, Canada Atlantic Ry., at Ottawa, Ont., born at Quebec, Sept. 28, 1860.

E. D. Nash, Assistant Superintendent, Central Vermont Ry., at New London, Conn., born at Shelburne Falls, Mass., Sept. 24, 1852.

J. Osborne, General Superintendent, Eastern Division, C.P.R., at Montreal, born there Sept. 19, 1861.

E. D. Parker, Assistant General Freight Agent, Minneapolis, St. Paul & Sault Ste. Marie Ry., at St. Paul, Minn., born at Granville, Ohio, Sept. 20, 1839.

W. D. Robb, Superintendent of Motive Power, G.T.R., at Montreal, born at Longueuil, Que., Sept. 21, 1857.

W. H. Rosevear, General Car Accountant, G.T.R., at Montreal, born at Wadebridge, Cornwall, Eng., Sept. 26, 1837.

D. Sutherland, General Freight Agent, Newfoundland Ry., at St. John's, Nfld., born at Niagara Falls, Ont., Sept. 21, 1873.

W. R. Tiffin, Superintendent, Northern Division, G.T.R., at Allandale, Ont., born at Hamilton, Ont., Sept., 1844.

W. Whyte, Assistant to the President, C.P.R., at Winnipeg, Man., born at Charleston, Scotland, Sept. 15, 1843.

TRANSPORTATION APPOINTMENTS.

Canadian Northern Ry.—W. Pratt, jr., has been appointed Superintendent of Sleeping and Dining Cars and News Department. Office at Winnipeg, Man.

Canadian Pacific Ry.—J. Madill, heretofore in the city ticket agent's office, Toronto, has been appointed city ticket agent, and agent Dominion Ex. Co. at Windsor, Ont.

N. E. Brooks is appointed Superintendent of Maintenance of Way and Structures, Calgary and Edmonton lines, effective Aug. 1. Roadmasters and Bridge Building Master will report to him. Office at Calgary, Alta.

F. S. Bremer is appointed Trainmaster of the First District, vice J. R. Dalton, transferred. Office Moose Jaw, Alta. Effective Aug. 1.

Grand Trunk Ry.—S. B. Kramer, heretofore

fore Chief Train Dispatcher, has been appointed Master of Transportation, in charge of distribution of passenger and freight equipment, subject to instructions of the Car Service Agent. He will also have supervision

over train movement and perform such other duties as may be assigned him by the Superintendent. Office at Montreal.

A. J. Nixon is appointed Acting Chief Train Dispatcher, vice S. B. Kramer, promoted.

E. J. Hillard, heretofore chief clerk to F. J. Watson, Division Freight Agent, Montreal, has been appointed Travelling Freight Agent at Moncton, N.B. The position is a new one, and has some special importance, as Mon-

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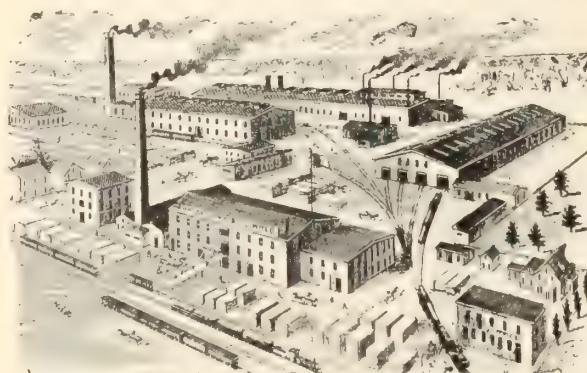
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ton will be the eastern terminal of the projected G.T. Pacific Ry.

R. C. Manson, heretofore Travelling Freight Agent Eastern division at Montreal, has been appointed chief clerk to F. J. Watson, Division Freight Agent, Montreal.

J. Edward, heretofore Contracting Freight Agent for the National Despatch Great Eastern line at Montreal, has been appointed Travelling Freight Agent Eastern division, succeeding R. C. Manson, promoted.

V. G. Snell has been appointed Contracting Freight Agent Eastern division at Montreal, succeeding J. Edward.

D. Morice, heretofore Terminal Superintendent at Toronto, has been appointed General Agent at Suspension Bridge, Ont., succeeding J. Beck, transferred to Black Rock.

Walter White, heretofore chief clerk to the Superintendent Middle division, has been appointed Terminal Superintendent at Toronto, vice D. Morice, assigned to other duties.

Ira W. Gantt, Division Freight Agent, Detroit, has been moved to Toledo, Ohio. Office Little Spitzer Building, Toledo, Ohio.

Milwaukee and Michigan Line and G. T. Despatch.—David Brown, heretofore first assistant General Traffic Agent G.T.R. at Chicago, has been appointed Manager Milwaukee and Michigan line and G. T. Despatch, succeeding C. Clarke and I. W. Gantt, resigned. Office Brush st. station, Detroit, Mich. The appointment is made jointly by the New York Central and Hudson River Rd., the West Shore Rd., and the G.T.R.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—J. R. Michaels has been appointed assistant Superintendent Minnesota division, main line. Office at Glenwood, Minn.

Montreal Street Ry.—D. McDonald has been appointed assistant General Manager of the M.S. Ry. and the Montreal Park and Island Ry., and will report direct to the Vice-President and General Manager.

Railway Equipment Notes.

The Mabou and Gulf Ry. has added a new locomotive and 11 hopper coal cars to its equipment.

The G.T.R. has added four locomotives to its equipment. These were built at its Point St. Charles shops.

The Intercolonial Ry. has placed orders for six second-class, vestibule sleeping cars, to be built in Canada.

The C.P.R., between July 16 and Aug. 11, ordered 10 first-class passenger coaches, to be built at its Hochelaga shops.

The Elgin and Havelock Ry. has added two locomotives to its equipment, and has had rebuilt two passenger cars and ten freight cars.

The Hiram L. Piper Co. (Ltd.), of Montreal, has issued its catalogue, no. 30, giving particulars of the different lines of railway, marine and electric supplies handled by it.

The Locomotive and Machine Co., of Montreal, has commenced building locomotives at its shops at Longue Point. The first locomotive is for British Columbia, and will be delivered in Nov.

The C.P.R. private car, Cornwall, part of the royal train, has been returned to Montreal, having been recently sent to Vancouver to bring the Crown Prince and Princess of Bavaria east.

The G.T.R. was reported to have placed orders for the construction of 19 new shunting engines of a specially powerful type at its Point St. Charles shops in U.S. papers, but we are officially informed that no orders have been placed.

The Intercolonial Ry. has received 135 box cars, 80,000 lbs. capacity, from Rhodes,

Curry & Co., Amherst, N.S.; and one conductor's van and 50 platform cars from its Moncton, N.B., shops; and 19 box cars, 60,000 lbs. capacity.

Rhodes, Curry & Co., Amherst, N.S., have received an order for the construction of 10 first-class vestibule passenger coaches for the Intercolonial Ry., and 100 flat cars for the Temiskaming and Northern Ontario Ry. Commission.

The B.C. Electric Ry. Co. has completed two cars for interurban service at its new shops at Vancouver, B.C. It is rebuilding one car, has two cars for its Vancouver line under construction, and proposes building six more cars for its city line. It has also completed a 40-ft. freight car with a 200 h.p. equipment.

The Stone and Webster Co., of Boston, Mass., has placed orders for large numbers of cars for its various lines, including three 20-ft. car bodies for the Cape Breton Electric Co., Ltd., of Sydney, N.S., and two 20-ft. car bodies for the Sydney and Glace Bay Ry. Company, Ltd., of Sydney, N.S. These orders have been placed in Canada.

In reference to the purchase of locomotives in Germany, Scotland and elsewhere, Sir Thos. Shaughnessy recently stated that the management of the C.P.R. are influenced by price, quality of workmanship and expedition in construction—especially at such a time as the present, when the traffic is expanding so rapidly, and it is difficult to find locomotive firms in a condition to complete large orders in conformity with type, which is a most essential matter, but that when the conditions were about equal, preference would undoubtedly be given to British builders.

The two simple consolidation locomotives being built at the Cooke Works of the American Locomotive Co., for the Sydney and Louisburg Ry., Sydney, N.S., for Oct. delivery, will weigh 184,000 lbs. each in working order, with 164,000 lbs. on the drivers, which are to be 50 ins. in diameter; cylinders 21 by 26 ins. The boiler will be straight, 72 ins. in diameter at the smallest ring, with firebox 96 ins. long, and 72 ins. wide. There will be 368 tubes, 2 ins. in diameter and 13 ft. 11 ins. long, to stand a working pressure of 200 lbs.; total heating surface in tubes and firebox, 2,849.36 sq. ft. The tender will be of the sloping back type, with a capacity for 4,000 gals. of water and 8 tons of coal.

The C.P.R. received the following equipment between July 16 and Aug. 11: 4 passenger locomotives from Scotland; 26 freight locomotives from the American Locomotive Co.'s Schenectady works; 3 switching locomotives from the company's Montreal shops; 2 dining cars from the United States; 2 first-class passenger cars and 24 refrigerator cars for service on passenger trains from Rhodes, Curry & Co., Amherst, N.S.; 84 box cars, 60,000 lbs. capacity; 23 refrigerator cars for freight train service, and 6 stock cars from the company's shops at Perth, Ont.; 90 flat cars, 60,000 lbs. capacity, from the Algoma Central and Hudson's Bay Ry. Co.'s shops at Sault Ste. Marie, Ont.; 14 flat cars, 60,000 lbs. capacity, built in Canada, and 12 vans from the company's shops at Farnham, Que.

Grain Elevator Notes.

The additional accommodation at the C.P.R. elevators at Fort William, Ont., will be completed in time for the handling of this season's crops.

The Prince Albert, Sask., Elevator Co. decided at its annual meeting recently held to sell its elevator by tender, to wind up its affairs, and dissolve the company.

The Canadian Elevator Co. has passed by-laws increasing the number of its directors

from five to six, and changing its chief place of business from Toronto to Winnipeg.

The Prescott, Ont., elevator was recently sold for \$28,000 to the Merchants Bank, which has a claim against the Elevator Co. The elevator and equipment originally cost \$150,000. The company is in process of liquidation.

The contract for the erection of the new conveyors at the C.P.R. elevators at St. John, N.B., to replace those burned at the fire, has been let to D. C. Clark, of St. John. The new conveyors will be constructed 12 ft. higher than the old ones, and the belts will be located 7 ft. further back from the face of the wharf than was the case before the fire.

The Hazledean Farmers' Elevator Co. has been incorporated under the Manitoba Companies' Act. It will carry on business at Hazledean siding, Man., with a capital of \$10,000. The incorporators are: J. McGill, J. E. Tampman, W. J. Renton, A. McGregor, C. H. Robinson, A. Craig, J. W. Disher, R. A. E. Gage and J. Renton, of Deloraine, Man.

The Montreal Harbor Commissioners are considering the advisability of collecting the penalty of \$100 a day from the contractors for the construction of the new elevator. The contract called for the completion of the work by Aug. 1, but a report presented to the Commissioners Aug. 10, shows that the work will not be completed for six or eight months. The contractors state that the Commissioners are responsible for the delay.

SHIPPING MATTERS.

List of Canadian Shipping.

The Department of Marine has just issued the list of vessels on the registry books of the Dominion corrected up to Dec. 31, 1902. Hitherto this list has only been published every three years, and consequently has not proved of that value to the shipping interest as it should have done. The annual issue of the blue book will be welcomed by shipping men all over the Dominion. There are some improvements that could be effected with advantage, notably the inclusion of particulars regarding the engines and boilers of steamers. This could be added without materially increasing the bulk of the volume. The total number of vessels on the books at that date, including old and new vessels, sailing vessels, steamers and barges, was 6,836 measuring 652,613 tons register tonnage, an increase of 44 vessels and a decrease of 11,870 tons register over 1901. The number of steamers on the books on the same date was 2,289, with a gross tonnage of 303,353 tons. Assuming the average value to be \$30 a ton, the value of the registered tonnage in Canada on Dec. 31 last, would be \$19,578,390. Following is a summary showing the number of vessels and number of tons on the books on Dec. 31, 1902:

	Sailing ships and steamers.	Steamers.	Gross tonnage steamers.	Net tonnage of sailing ships and steamers.
New Brunswick..	917	129	9,991	64,605
Nova Scotia ...	2,037	172	20,530	212,667
Quebec	1,288	363	77,860	136,660
Ontario	1,699	1,138	125,610	156,449
P. E. Island ..	150	16	3,272	13,464
British Columbia	584	359	55,050	58,292
Manitoba	139	97	7,030	7,536
Yukon district ..	16	15	4,010	2,640
Total	6,836	2,289	303,353	652,613

There are 75 ports of registry in the Dominion: 7 in New Brunswick, 21 in Nova Sco-

tia, 5 in Quebec, 36 in Ontario, 1 in Prince Edward Island, 3 in British Columbia, 1 in Manitoba, and 1 in the Yukon Territory. Quebec city has the largest number of vessels on its register, 654, of which 500 are sailing vessels; while Montreal has the largest tonnage, 91,347; and Toronto has the largest number of steamers registered, 240, an increase of 20 over the figures for 1901. Thirteen ports show no steamers on the registers.

The number of new vessels built and registered in the Dominion during last year was 316, measuring 30,216 tons register tonnage. Estimating the value of the new tonnage at \$45 a ton, it gives a total value of \$1,359,720 for new vessels. The new vessels were built and registered as follows:

	Vessels.	Tons
New Brunswick	23	1,098
Nova Scotia	14	14,837
Quebec	60	1,600
Ontario	60	8,701
Prince Edward Island	8	80
British Columbia	30	2,880
Manitoba	10	1,17
Yukon district	3	30
	316	31,100

In point of "ownership" of net tonnage Canada stands eighth among the nations, those having over 100,000 tons being as follows:

British, including Canada and the colonies	10,475,220
United States	2,460,282
German	1,179,810
Norwegian	1,354,386
French	1,056,491
Italian	828,205
Russian	875,311
Canadian	65,600

Swedish	666,788
Spanish	585,449
Japanese	518,508
Dutch	182,138
Danish	400,011
Austrian	391,300
Grecian	360,507
Turkish	241,507
Brazilian	193,137
Belgian	118,015

Montreal Harbor Improvements.

An inspection was recently made by members of the Montreal Harbor Commission, a number of members of Parliament and others interested of the harbor improvement works now nearing completion at Montreal. The memorandum of information in regard to the works, prepared by the commissioners, shows that in 1888 a plan of the proposed works was made and approved. The works proposed included four piers opposite to the central part of the city and extension of wharves at Windmill point. The construction of the most easterly of the Hochelaga piers was commenced in the following year, and was practically finished by the fall of 1891. The easterly pier at Hochelaga has an extreme length of 641 ft., a breadth of 180 ft., and wharf frontage of 1,550 ft., including two short pieces of adjoining shore wharf. The construction of the most westerly of the piers was commenced in 1894, and was finished by midsummer 1895. It is 850 ft. long by 180 ft. wide, and has a frontage of 1,713 ft. The basins of both have a depth of 17½ ft. at low water. In 1900 the Dominion Government determined to build a high level pier at Hochelaga, between the two constructed by the Commissioners, and a by-law was passed giving permission for the building of the pier, the commissioners being in turn relieved from the construction of the two central piers.

When completed this pier will be 1,000 ft. long and 478 ft. wide. The contract was let to Poupore & Malone in 1900, and the work now is nearly completed.

In 1894 an extension of the Windmill Point Basin and wharf to its intended termination at the upper end was undertaken by the commissioners, and the work was carried on until it was brought to its present state in 1897. The improvement works in the centre part of the harbor, now near completion, were commenced on July 21, 1891, the dredging of the island shoals, and the formation of the embankment of the guard (now the Mackay) pier being the first work undertaken. By the fall of 1898 the Mackay pier had been extended to the Victoria Bridge, but not to its full height. In 1899 the raising of the embank-

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HALIFAX TO LIVERPOOL Via Queenstown
BOSTON TO LIVERPOOL Via Queenstown
BOSTON TO MEDITERRANEAN PORTS

MONTREAL TO LIVERPOOL			
Canada	June 13th	July 18th	August 22nd
Kensington	" 20th	" 25th	" 29th
Dominion	" 27th	Aug. 1st	Sept. 5th
Southwark	July 4th	" 8th	" 12th

BOSTON TO LIVERPOOL			
Commonwealth	July 2nd	July 30th	August 27th
New England	" 9th	Aug. 6th	Sept. 3rd
Mayflower	" 16th	" 13th	" 10th
Columbus	" 23rd	" 20th	" 17th

BOSTON TO MEDITERRANEAN			
Vancouver	June 6th	July 18th	August 20th
Cambrian	" 20th	Aug. 8th	Sept. 10th

Spacious Promenade Decks, Electric Light, Passenger Accommodation all amidships.

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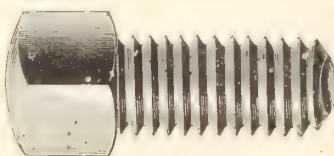
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Capital, authorized, \$1,000,000.00
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 and Working Men's Benefit Insurance.

ment was continued, and by the close of navigation of that year the whole pier had been finished, except a small part at the lower end, which has still to be slightly raised and levelled off. The total expenditure to that date on the Mackay pier was \$355,500, exclusive of the cost of the railway tracks now being laid upon the pier, of which the city has paid \$80,598.

On July 12, 1898, the sanction of the Minister of Public Works was given to the carrying out of the plan known as 12A 2, which provided for the demolition of the old wharves between the entrance to the Lachine canal and the Victoria pier, and the construction in their place of three high level piers of 300 ft. in width by 825 ft. to 1,014 ft. in length, with shore wharves of 210 ft. to 240 ft. in breadth. The plan also provided for the widening of Common and Commissioners streets to widths of from 80 ft. to 100 ft., and the placing of a wall between the street and the wharves for the protection of the city from floods, and for making the new wharves of such height as to join the streets directly without ramps.

The work of constructing the Jacques Cartier pier was commenced in 1898, and at the end of August, 1899, one ship's berth had been finished and put into use, and by the close of navigation the whole pier had been finished and put into regular service. In 1900 the shore wharf between Victoria pier and Jacques Cartier pier was built up to high water mark, and was finished and put into use early in the summer of 1901. In September, 1899, the construction of the Alexandra pier and the shore wharf between the pier and the canal was begun, and in October, 1900, a ship's berth of the new pier was ready for use. By the close of navigation in the same year the remainder of the pier had been completed, with the exception of levelling off part of the earthwork, which was done in the spring of 1901, and the whole pier was made ready for use by July 6.

The building of the King Edward pier and the shore wharf between that pier and the Alexandra pier, was commenced at the opening of navigation in 1901, and by its close more than half a mile of cribwork had been sunk. In the spring of 1902 work was resumed, and by May 15 500 ft. of one side of the pier was ready for use, and before the close of navigation all the pier, excepting about 500 ft. of the down-stream side had been put into use. Part of the concrete wall between the King Edward and Alexandra piers was built upon the cribwork in 1902, and the earth fillings behind the walls is now nearly completed. During 1902 cribs were also sunk and a concrete front wall built thereon above water for forming the shore wharf between the Jacques Cartier and King Edward piers, and a considerable quantity of earth filling was made behind the wall by derricks. Work was resumed upon this and the unfinished 500 feet of the King Edward pier early in the spring of the present year, and on June 15 the whole was ready to berth ships.

In 1902 an embankment of about 40 feet top width was made up to high level alongside the flood protection wall, and the two main railway tracks were taken from the low level and laid upon it. The widening of the railway bank and the general filling of the shore wharf was resumed in the spring of the present year, and practically the whole has now been raised to high level grade. The works under these plans are expected to be completed, except in some minor details, this year.

The Dominion Parliament has passed, at the current session, an act respecting the safety of ships, by which the deck loading in winter is prohibited. The act does not make any change in the law, but by certain alterations brings the Canadian act into textual agreement with the British act concerning deck loading.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 63. July 18.—Prince Edward Island—159. South coast, Crapaud road, buoyage.

No. 64. July 28.—Nova Scotia—160. South coast, Halifax harbor and approach, particulars of buoyage. 161. South coast, Sambro channel, particulars of buoyage.

No. 65. July 28.—British Columbia—166. Georgia strait, uncharted rocks off Sisters lighthouse. 167. Fisher channel, depth on Walbran rock.

No. 66. July 29.—Ontario—168. Lake Huron, Jennie Graham shoal, bell buoy established. 169. Lake Huron, Great Duck island, wharf on east side. 170. Lake Huron, north channel, Cockburn island, Tolsonville, light established.

No. 67. July 30.—Nova Scotia—173. South coast, Halifax harbor, Mauger beach, change in characteristic of fog signal. New Brunswick—174. Gulf of St. Lawrence, Miscou island, fog alarm again in operation.

No. 68. July 31.—Quebec—Gulf of St. Lawrence, Seven islands, Carousel island, light station, fog alarm established.

No. 69. Aug. 6.—Ontario—176. Lake Ontario, Toronto harbor approval, buoyage, general information. 177. Lake Ontario, Toronto harbor approach, off Lighthouse points, bellbuoy discontinued.

The following notices have been issued by the U.S. hydrographic office:

No. 31. Aug. 1.—St. Mary's river—1578. Middle Nebbish cut clear of obstructions. Lake Ontario—1580. Olcott depths in channel and on bar.

No. 33. Aug. 15.—Lake Ontario—1680. New York, Oswego harbor, depth in outer harbor. St. Lawrence river—1681. Ogdensburg harbor, dredged channel.

The act respecting the encouragement of dry docks in Canada, by which the Government bonus has been increased to 3% for 20 years, to an amount not exceeding \$30,000 in any one year, has been passed by the Dominion Parliament.

Maritime Provinces and Newfoundland.

Capt. P. McKay, for many years trading between Maritime province ports and the West Indian islands, died at Sussex, N.B., recently.

The Springfield Steamship Co. has been authorized, under the New Brunswick Companies' Act, to increase its capital from \$12,000 to \$45,000.

The contract for the building of the warehouses on no. 4 wharf at Sand Point, has been let by the St. John, N.B., city council to G. S. Mayes, who is erecting the sheds on no. 3 wharf.

The Charlottetown, P.E.I., Board of Trade is negotiating with the Dominion Government with a view of securing a steamship service which will give two trips a day between Prince Edward Island and the mainland.

The str. Eldorado has reached Quebec from England, to take the place of the Norwegian str. Stord, which went ashore at Pointe des Montes, Que. The Eldorado will be used as a trading ship along the Labrador coast.

It is reported that Mackenzie, Mann & Co., of Toronto, will establish a steamship service on the Bay of Fundy and adjacent waters, on the completion of the Middleton and Victoria Beach Ry., which they have recently acquired.

The Dominion Government expedition to Hudson's Bay consists of 40 persons, including a scientific party of twelve under A. P. Low, of the Geological department. The

steamer Neptune sailed from Halifax, N.S., with the party, Aug. 15.

A company is being organized at Sydney, N.S., with a capital of \$1,250,000, with a view of constructing a graving dock there. The Boston Engineering Works is interested in the project, and proposes to establish a ship yard in connection with the dock.

The str. Queen, which was purchased at Montreal in 1902 and taken to St. John, N.B., this spring for the river trade, was burned at her wharf, Indiantown, N.B., July 28. She was valued at \$15,000, and was insured for \$4,500. The steamer will not be rebuilt.

Recent launches at Nova Scotia ship yards include a 200 ton schooner at Parrsboro, of which Rhodes, Curry & Co. (Ltd.), of Amherst, N.S., are part owners; a 270 ton schooner at Port Grenville, N.S., for Capt. Wasson, of Parrsboro; and a 536 ton barge, for the Cumberland Ry. and Coal Co.

The Department of Marine is considering tenders for the purchase of the str. Acadia. The Acadia was built in Pennsylvania, U.S., 1880, and has the following dimensions: length, 182.5 ft.; breadth, 23.6 ft.; depth, 18.7 ft.; tonnage: gross, 520 tons register, 354 tons. She was engaged in the lighthouse supply service.

D. McNicoll, Vice-President C.P.R., denies the press reports that the company is going to run a line of steamers between Halifax, N.S., and Great Britain. C. E. E. Ussher, General Passenger Agent, and W. R. McInnes, Freight Traffic Manager, of the company, recently visited Halifax, and were making some investigations there.

The Hudson's Bay Company's str. Inenew, built at the Polson Ironworks, Toronto, in 1892, has met with several accidents since she left Toronto. Two occurred last year, repairs being at two points, and the Inenew wintered in St. John's, Nfld. This year a new captain and crew took charge, but the steamer met with another accident and is now back at St. John's.

The J. F. Bridges Tug Boat Co. (Ltd.) has been incorporated under the New Brunswick Companies' Act, with a capital of \$20,000, to carry on a towing and general navigation business upon the St. John river. The officers are to be at Gagetown, N.B., and the first directors are: J. F. Bridges, A. W. Ebbett, J. Chapman, J. F. McAllister, B. M. Dykeman, and H. B. Bridges.

It is expected that the str. Senlac will be launched at St. John, N.B., early in September. Her dimensions are: length, 187 ft., over all; breadth, 32 ft. 6 in.; depth of hold, 16 ft. 6 in.; and she will be fitted with fore and aft surface condensing engines, cylinders 20 in. and 40 in. diameter, by 30 in. stroke, to which steam will be supplied by two Scotch boilers, 10 ft. 6 in. diameter, by 12 ft. 6 in. long. The Senlac will trade from St. John to Yarmouth, N.S., and south shore ports.

Province of Quebec Shipping.

The Manchester Trader ran ashore on the southern shore of Anticosti island, but is reported uninjured.

The Quebec Harbor Commission is seeking Dominion aid in connection with the project for harbor development there.

The C.P.R. Atlantic steamship Manitoba went aground near Longueuil, Aug. 3, and was got off apparently undamaged.

The traffic passing through the Soulanges canal during May and June amounted to 83,927 tons, against 90,090 for the same period of 1902.

The Governor-in-Council has approved of the by-law of the Quebec Harbor Commission

prohibiting whistling by steamers while passing Quebec, except such whistles as are absolutely necessary for signalling, etc.

The floating elevator belonging to the Great Lakes and St. Lawrence Navigation Co. at Quebec, was burned out Aug. 6. The elevator cost \$22,000, and was repaired and improved at a cost of \$3,000 in the spring.

The Canadian Transit Co., which was incorporated under the Ontario Companies' Act, has been given a Dominion charter, the head office being fixed at Montreal. (Aug., pg. 289.)

The engineer to the Montreal Harbor Com-

mission has been instructed to revise the plans he had prepared for the construction of additional sheds on the wharves there. Mr. Kennedy desired to erect two storey sheds, but a number of the Commissioners object to anything except ordinary one storey buildings.

The number of ocean-going vessels arriving in Montreal for the season of navigation to July 31, was 388, having a tonnage of 922,911 tons, against 367 vessels of 726,868 tons in 1902. Of inland vessels there arrived within the same period 4,822 vessels, having a tonnage of 1,053,499 tons, against 4,122 vessels having a tonnage of 852,761 tons.

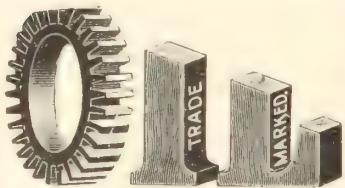
Ontario and the Great Lakes.

Capt. Wm. Boyd, late of the steamer White Star, and for 40 years a mariner on the Great Lakes, died in Toronto recently, aged 63.

Mrs. J. B. Symes, wife of Capt. J. B. Symes, of Sarnia, and sister of Capt. P. M. Campbell, of Collingwood, died at Sarnia, Aug. 6.

The G. T. R., it is reported, is investigating the possibility of establishing a line of steamers on the Upper Lakes with Goderich as the terminal port.

The Port Stanley Navigation Co.'s str. Winona will probably be placed on a run



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MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1902, gives the following statistics for the year:

CROPS.		
ACRES.	AVRAGE YIELD.	TOTAL.
Wheat.....2,039,940	26. bus.	53,077,267 bus.
Oats.....725,060	47.5 "	34,478,160 "
Barley.....329,790	35.9 "	11,848,422 "
Potatoes.....22,005	157 "	3,459,325 "

STOCK.

Number of stock in the Province, July 1, 1902:
Horses.....146,591 Sheep.....20,518
Cattle.....282,343 Pigs.....95,598
Value of Dairy Products.....\$926,314

15,000 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1902—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,000,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

For full information, maps, etc., FREE, address JAMES HARTNEY, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.
Or J. J. GOLDEN, Manitoba Emigration Agt., 617 Main St., Winnipeg, Man.



FARMING IN THE SOUTH.

The Passenger Department of the Illinois Central Railroad Company is issuing monthly circulars concerning fruit-growing, vegetable gardening, stock raising, dairying, etc., in the States of Kentucky, West Tennessee, Mississippi, and Louisiana. Every Farmer or Homeseeker, who will forward his name and address to the undersigned will be mailed free. Circulars as they are published from month to month.

The Local Agent is asked to note Cheap Rates to all the North-West, also to California from February 15 to April 30, nearly \$20 less than regular second class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. December folder is a good one. Get it!

G. B. WYLLIE,

Canadian Passenger Agent.

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RICHELIEU AND ONTARIO NAVIGATION COMPANY.

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MAIL LINE STEAMERS

(Palatial Steel Steamers)

Leave Toronto (from June 1st to 13th) Mondays, Wednesdays and Saturdays; thereafter daily, except Sunday, for Rochester, Kingston, Clayton, 1,000 Island Points and intermediate ports (running all the Rapids) to Montreal, where connection is made with steamers for Quebec, Murray Bay, Tadoussac and points on the famous Saguenay River.

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Plying between Hamilton, Toronto, Montreal and intermediate ports, passing through the picturesque scenery of the Bay of Quinte, 1,000 Islands and shooting the Rapids.

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from Wallaceburg to Sarnia, Windsor and Detroit twice a week.

It is reported that the Oakville Navigation Co. will cease operating after the close of the present season, and will hand over its wharf rights, etc., to the Lake Ontario Navigation Co.

W. Carmichael and F. A. Bassett, of Collingwood, Ont., are engaged in endeavoring to form a company to operate an additional line of freight and passenger steamers on Georgian Bay.

The traffic through the Cornwall canal on the St. Lawrence route for May and June is reported by the Department of Railways and Canals to have been 90,072 tons, against 23,599 in the same months of 1902.

The Huronic, Monarch and Empire will call regularly at the New Ontario dock, Sault Ste. Marie, Ont., instead of at the Union dock on the Michigan side of the river, and the Majestic will call at both docks.

The application to the Dominion Parliament for an act incorporating the St. Joseph Transportation Co., to construct a canal from St. Joseph on Lake Huron to Lake Erie, near Pelee Passage, has been withdrawn.

The Montreal Witness states that within two years the Canadian tonnage on the Great Lakes and rivers has increased over 100%. At the present time it is reported that there is great difficulty in securing trade for the steamers, particularly from the head of the lakes.

The Algoma Navigation Co. is negotiating for the construction of a new steel steamer for service between Owen Sound and Sault Ste. Marie, Ont. The plans show a steamer 190 ft. long, 34 ft. beam, with 50 state-rooms, giving accommodation for 110 passengers and 700 tons gross.

The Canada Atlantic Transit Co. has chartered the Chili for the season, thus making five steamers to carry wheat from U.S. upper lake ports to Depot Harbor, Ont. The Chili has a capacity of 150,000 bush., bringing up the carrying capacity of the company's fleet to 1,000,000 bush. every round trip, about ten days.

Replying to a question in the House of Commons the Acting Minister of Railways and Canals stated that \$3,907,577 had been expended upon the Trent Valley canal, and that he was not at liberty to say what work would be done in the future. The lift lock at Peterboro is expected to be ready early in Sept.

The Midland King, a new steamer for the Midland Navigation Co., was launched at Collingwood, Aug. 19. The new steamer is a sister ship to the Midland Queen, built in Dundee, Scotland, in 1901. Her dimensions are: length 375 ft., over all, breadth 48 ft., depth of hold 28 ft. She will have a capacity of 200,000 bush.

Jas. Reid, of Sarnia, Ont., has been fined \$376 by the U.S. Custom authorities for a breach of the law. During a fire at Port Huron one of the Reid tugs towed a lumber-laden scow from a burning saw mill at Port Huron, Mich., and towed it back again after the fire was out. The offence lay in not reporting arrival and clearance.

The Richelieu and Ontario Navigation Co.'s str. Hamilton struck a rock while running the Long Sault rapids near Cornwall, Ont., Aug. 12, and was beached to prevent sinking. The damage done was subsequently found to be very slight, and the Hamilton resumed her place in the service between Hamilton and Montreal a few days after the accident.

The project to operate one or more turbine steamers on Lake Ontario between Hamilton and Toronto appears to have taken shape, and application is reported to have been made

for the incorporation of a company. John Moodie is President, C. Birge Vice-President, and G. Hope, Treasurer of the provisional directorate, which is composed entirely of Hamilton men.

The str. Enterprise, owned by the Huntsville, Lake of Bays and Lake Simcoe Navigation Co., sank at her dock after landing an excursion at Barrie, Aug. 5. The Enterprise was built as a lumber carrier in 1869, and was some years later rebuilt as a passenger steamer. She was chartered for the season by R. A. Harris, of Atherley, Ont. The steamer will be raised and repaired.

The judicial committee of the Privy Council, in London, Eng., has confirmed the decision of the Supreme Court of Canada, holding that the \$3,500 collected from the Algoma Central Ry. Co. as duty on U.S. built str. Minnie M., on her being brought into Canada, was properly collected. The Exchequer Court had previously decided that the duty was not properly chargeable, as the Customs' Act did not specifically state that duty was chargeable, although the schedule fixed the amount.

The total freight passing through the Canadian and the U.S. canals at Sault Ste. Marie, in July, was 5,208,771 tons, against 4,524,578 tons in July, 1902. The figures for the Canadian canal are:

	1903.	1902.	Increase or Decrease.
April	159,763 tons	190,926 tons	31,163 tons
May	636,747 "	314,262 "	322,485 "
June	917,105 "	1,118,564 "	201,459 "
July	890,338 "	523,936 "	366,402 "
	2,603,953 tons	2,147,688 tons	456,265 tons +
	+ increase.	- decrease.	

The International Transit Co., Sault Ste. Marie, Ont., failed in its application to secure an injunction to compel the Hiawatha Navigation Co. to permit the landing of the I. T. Co.'s str. Fortune at its dock at Kensington Point, near Desbarats, Ont. The H.N. Co. had two steamers employed to carry passengers at \$1 each from Sault Ste. Marie, to witness the Indian play Hiawatha as produced by the Indians under C.P.R. auspices, and the Fortune was put on the run to carry passengers at 50 cents a head. The H.N. Co. refused to grant dock privileges to the competing boat, hence the action.

The Neebing Navigation Co. (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of \$25,000, to carry on a general navigation business on the Great Lakes. G. T. Marks, H. A. Wiley and F. S. Wiley, of Port Arthur, Ont., are the directors of the company, which will have its head office at Port Arthur. A new steamer, the Neebing, has been launched at Newcastle-on-Tyne, Eng., for the company. She has the following dimensions: length, 256 ft.; breadth, 42 ft.; depth, 25 ft.; and will carry 3,000 tons on a draft of 18 ft. The Neebing is expected to reach Port Arthur with a cargo of steel rails early in Sept.

The new steel freight str. Tadousac for Waldie and Wright, of Toronto, was launched Aug. 12, from the yards of the Bertram Engine Works. The steamer was named by Miss M. Waldie, daughter of one of the owners. Not only is the hull of the new steamer constructed of steel, but the cabins, pilot house and other structures on the deck are constructed of the same material. Very little woodwork, indeed, has been used in the vessel. Her dimensions are: length, 260 ft.; breadth, 43 ft.; depth, 28.6 ft. She is fitted with triple expansion engines, to which steam will be supplied by two Scotch boilers, each 11 ft. 6 in. by 12 ft., at a pressure of 180 lbs. to the square inch. It is calculated that her speed will be about 15 miles an hour. On a draft of 17 ft. 10 in. she will carry a cargo of 120,000 bush. It is expected that the Tadou-

sac will be on the Montreal-Port Arthur route early in Sept.

G. McFarlane, of Brown, McFarlane & Co., Glasgow, Scotland, is negotiating with the C.P.R. with a view of fitting up the company's lake steamers with turbine engines. Mr. McFarlane said engines constructed on the turbine principle were most suitable for lake boats, the many advantages, among others, being the absence of vibration, the small space occupied by the engines, the economy in tube, the light weight in the machinery, as compared with reciprocating engines. All the above conditions go to make the highest speed. There are two boats on the Clyde—the King Edward and the Queen Alexandra—that have been running for two years, in which turbine machinery has been used. These boats have given the utmost satisfaction. It was first thought that it would be impossible to stop at so many piers, with screws instead of paddles, but in practice that theory has been quashed.

The U.S. Government held an investigation at Ogdensburg with a view of forming an opinion on the proposed construction of a dam on the St. Lawrence between Adams and Galoup islands, by the Dominion Government. Finding that strong cross currents interfered with traffic in the recently completed new channel near this point by forcing many vessels aground, the Dominion Government petitioned the U.S. government for permission to construct a dam 300 feet long at low level to obviate the difficulty. A. W. Fraser, counsel for the Canadian government, T. S. Rubidge, superintending engineer of the Canadian canals, and his assistant A. L. Kellaly, of Cornwall; J. C. Quintos, assistant engineer, of Oswego, N.Y.; Geo. R. Malby, representing the George Hall Coal Company, and the Ogdensburg Coal and Towing Company, and other representatives of U.S. forwarders appeared in favor of the plan. It was opposed by Allan Dawson, owner of Galoup Island, who claimed that the erection of the dam would raise the water level three feet, causing a strong current, and also that the water would overflow about 60 acres of the island. Mr. Dawson filed an objection to further proceeding before Major Bingham. The opposition was subsequently withdrawn, and the Secretary of War has given his approval to the construction of the dam, as he was authorized by act of congress.

Manitoba and the Northwest Territories.

A new steamer, named the Pathfinder, was launched at Prince Albert, Sask., for Capt. Deacon, Aug. 5.

The Red River Navigation Co. has been incorporated under the Manitoba Companies' Act, with headquarters at Winnipeg, and a capital of \$20,000, to carry on a general navigation business. The incorporators are: D. E. Sprague, I. M. Ross, J. McDiarmid, L. Bellefeuille and Hon. R. Rogers, all of Winnipeg.

D. D. Mann recently stated that the Canadian Northern Ry. Co. would have its railway to Chesterfield Inlet, on Hudson's Bay, in two or three years, and that it would export grain by that route, having large storage elevators there. Hudson's Bay is situated between the parallels of 51 degrees and 64 degrees north latitude, and is, therefore, well outside the Arctic zone, and lies between the meridians of 78 degrees and 95 degrees west longitude. It is about 1,000 miles in length from north to south, and is from 600 miles wide, and covers an area of nearly 600,000 square miles. It has a depth of 420 ft., there being very little variation from this depth in any part of the bay. The principal and, as far as we know at present, the only practicable approach to the Bay in a ship, is through Hudson's Strait, a deep channel about 500 miles in length,

which separates Labrador from the islands of Arctic America. The strait has an average breadth of about 100 miles, but the width in the narrowest part of the channel is not more than 45 miles. The soundings in the strait vary from 900 to 1,800 feet, and it is wonderfully free from shoals or rocks, or any other obstacles which would tend to make the navigation of a narrow channel more than ordinarily dangerous. The Hudson's Bay Company's ships have navigated the bay and straits for the last 250 years. A port on the west shore of Hudson's Bay, at the mouth of the Churchill River, would be nearer to Liverpool, the great mart of the world, than is Montreal or New York, and a railway from Winnipeg or Regina to Hudson's Bay would bring the Northwest 1,000 miles closer to Liverpool than it is at present day via the Great Lakes and Montreal. The Canadian Government is sending a new expedition to the bay for general investigation.

B.C. and Pacific Coast Shipping.

The Puget Sound str. La Conner was burned recently in Burrough's Bay. The total loss will be about \$20,000.

Capt. J. Gosse, of the C.P.R. str. Princess May, has been appointed a member of the board of Nanaimo pilots, succeeding the late Capt. Bendrost.

Capt. Walbran, who recently retired from the command of the Dominion cruiser Quadra, was presented with a silver-mounted walking stick by the members of the crew.

The Dominion Parliament has passed an act incorporating the Columbia River Improvement Co., with power to carry out works for the improvement of navigation on the Columbia river.

The Vancouver str. Saga, built at Gothenburg, Sweden, in 1876, was recently sold by

the sheriff for \$800. The steamer has not been operated for a long time, and will now be broken up.

Vancouver merchants propose guaranteeing \$1,250 a year, for five years, for a steamer service between the city and the northern ports of Vancouver island, in opposition to the present service of the Union Steamship Co.

The North Vancouver Ferry and Power Co. has taken over the ferry service at North Vancouver. The existing steamer will be kept on the service at present, and a new one will be added in 1904. A. St. G. Hamersley is manager.

The stern wheel str. Walsh, built for the C.P.R. service on the Stikine river during the early rush to the Klondike, was burned at Sidney recently. The steamer has recently been engaged in the excursion trade from Spokane, Wash., for U.S. owners.

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The reports of the Grand Trunk Pacific Ry. surveyors respecting the harbor at Port Simpson, to which point the new transcontinental railway will be carried, confirm all former reports as to its suitability for navigation, and as the ocean terminal of a railway. The present population is about 800, mainly Indians.

The C.P.R. and the Victoria Board of Trade have joined in advocating the dredging of the Victoria harbor to a depth of 16 ft. at low tide. At some points there is now only 11 ft. of water at low tide, and at others vessels drawing 13 ft. 6 in. find a difficulty in navigating. The attention of the Dominion authorities has been drawn to the matter.

Among the Express Companies.

The Canadian Northern Ex. Co. has extended its service from Neepawa to McCreary, Man.

The Canadian Northern Ex. Co. has opened a branch office in the Grain Exchange, Winnipeg.

The Dominion Ex. Co. has opened offices at Clondeboye and Grande Point, Man.; and Millbridge, Ont.

The Newfoundland Ex. Co. is now a party to present classification and supplement of the Canadian Ex. Co.

A daily service is now operated by the Canadian Northern Ex. Co. between Winnipeg and Port Arthur on the new train, the "Lake Superior Limited."

Until further notice agents of the Dominion Ex. Co. will not issue money orders payable at points of lines of Maritime Ex. Co. located on the Nova Scotia Central Ry.

A petition is being signed in Vancouver, B.C., asking for the pardon of W. J. Sloan, late agent of the Great Northern Ex. Co. there, now undergoing a sentence of imprisonment for embezzlement.

G. Henderson, agent of the Dominion Ex. Co. at Windsor, Ont., who succeeded B. Holman, now awaiting trial on a charge of embezzling \$800, has also got his accounts in disorder, and an auditor is straightening them out.

The British America Ex. Co. has retired from all steamship lines on the Great Lakes, and the Canadian Ex. Co. announces that all matter for points reached by that company's routes on steamships should be routed via North Bay, Ont.

Telegraph and Cable Matters.

The Canadian Northern Telegraph Co. has opened an office in Carberry, Man.

The Canadian Northern Telegraph Co. has opened an office in the Grain Exchange Building, Winnipeg.

The act incorporating the Marconi Wireless Telegraph Co. of Canada has been passed by the Dominion Parliament.

The C.P.R. Telegraph department has closed its offices at West Robson, B.C.; Stelarton, N.S.; Creighton and Corunna, Ont.

The Canadian Northern Telegraph Co. has moved into its new offices on the north-west corner of Portage Avenue and Main st., Winnipeg.

J. Kent, manager of Telegraphs, C.P.R., stated in Winnipeg that new copper wires are being strung from Winnipeg to Brandon, Nipinka and Minnedosa, Man., and from Calgary to Edmonton and Macleod, Alta.

The Dominion str. Tyrian has completed laying the cable between Eastport, Me., and Grand Manan Island, N.B. Three breaks

were found in the nine miles of old cable, which was taken up, and five miles of new cable were spliced in.

The county court judge of Grey has decided that the C.P.R. telegraph does not come within the clause exempting C.P.R. property from taxation in Owen Sound, Ont., under the local agreement, and fixed the value of the poles, wires, etc., at \$100.

C. H. Reynolds, of London, Eng., manager for the Pacific Cable Board, has completed an inspection of the British Columbia terminals of the cable, and sailed on the cable steamer Iris to inspect the Fanning Island, Suva and other stations on the Pacific ocean.

The C.P.R. telegraph department has laid about 45 miles of cable from the Bamfield creek cable station, Vancouver island, to Alberni, B.C. This cable will replace a land line used in connection with the all-British trans-Pacific cable, which caused considerable trouble during the winter.

New machinery is being installed at the Marconi wireless telegraph station at Glace Bay, N.S. The station has not been opened for the transmission of messages, the official statement made being that the recent discoveries made have simplified the method of transmission considerably.

The residents of a number of places in Newfoundland are complaining that the Government administration of the telegraph service is not equal to what it was before it was taken over. Some important lines are reported to have been interrupted for ten or twelve days without any attempt made to make repairs.

The cable companies owning the Atlantic cables charge one shilling for service indications on each message to be sent over the all-British trans-Pacific cable, in addition to the regular charge a word, while no charge is made by the Pacific Cable Board for service indications on messages transmitted over its cable for other lines.

The House of Commons has passed a resolution for the purpose of aiding the establishment of a cable news service between Great Britain and Canada. The amount voted is \$15,000 a year for two years; \$10,000 a year for the succeeding year, and \$5,000 for 1907-08. The service to be provided is to be open on equitable terms to all papers in Canada.

At the annual meeting of the stockholders of the New Brunswick Electric Telegraph Co. held Aug. 10, at the company's office, Rothesay, the accounts were submitted and found satisfactory, and a dividend of 4½% was declared for the past six months. The retiring board of directors was re-elected. The officers and directors are: President, L. J. Almon; Secretary, P. C. Dawson; other directors—J. J. Tucker, A. O. Earle, Jas. Kennedy.

The C.P.R. Telegraph department has opened the following offices: Castlegar, Field hotel and Glacier, B.C.; Altamont, Baldur, Beaver, Belmont, Elgin, Eli, Fairfax, Hilton, Letellier, Lenore, Margaret, Miami, Minto, Myrtle, Minette, Oakville, Roland, Roundthwaite, Rosebank, St. Agathe, St. Jean, Sintot, Solsgirth, Somerset, Swan Lake, Treesbank and Underhill, Man.; Bowden, Crossfield and Thomkins, Northwest Territories; Londonderry, N.S.; Rondeau, Ont.; Angers, Que.

The following sums have been voted by the Dominion Parliament for maintenance and extensions of the Government telegraph lines during the current year: Maritime Provinces—Prince Edward Island and mainland, \$2,000; St. Peters to Louisburg, N.S., with extension to Scatari island lighthouse, St. Peters to Louisburg and Scatari island, extensions

Gabarouse to North Sydney, N.S., \$18,000; St. Peters to Canso, telegraph line and cable between Port Mulgrave and Port Hawkesbury, \$10,000; land and cable lines Gulf of St. Lawrence, etc., including maintenance of Marconi station at Belle Isle, \$80,000; compassionate allowance to Capt. T. Bouchard on account of wreck of his schooner while on service for the telegraph department, \$347.08. Quebec—Improving roadways in Quebec eastward of Godbout, along telegraph lines, \$1,000; Belle Isle, telegraph line between extreme ends of island, \$5,000; Magdalene islands, land lines, renewal of wiring, \$2,000; Byron island, Magdalene islands, and Anticosti cable connection, balance due, \$36,782; lines on north shore St. Lawrence, revote of lapsed amount, \$12,041.57; cable between Amherst and Grindstone island, Magdalene islands, \$3,789.84. Ontario—Pelee island to mainland, to cover Governor-General's warrant, \$3,500. Northwest Territories—General, \$20,000; extension of St. Albert-Riviere qui Barre telephone line to Alexander Indian agency, \$500. British Columbia—General, \$15,000; Quesnel-Atlin services, Port Simpson, Hazelton, 150 Mile House, Quesnel Forks, Horsefly branches, \$20,000; Alberni-Clayoquot line, to complete payments, \$1,050. Yukon—Ashcroft-Dawson line, construction, \$121,000; working expenses, including works of reconstruction, \$123,000; to cover special warrant of Governor-General, \$52,418.

General Telephone Matters.

The Bell Telephone Co. is putting a number of its lines in Winnipeg underground.

The Bell Telephone Co. is installing a metallic circuit on its Parry Sound, Ont., line.

The Bell Telephone Co. is stringing a new line between Richmond and Kingsbury, Que.

The Ottawa city council has decided by a vote of eight to seven not to re-open negotiations with the Bell Telephone Co.

The Bell Telephone Co. is establishing a line connecting Blyth, Auburn and Belgrave, Ont., with exchanges in these villages.

The New Brunswick Telephone Co. has completed soundings in the harbor prior to laying a cable between St. John and Carleton.

The Bell Telephone Co. has constructed a small breakwater at the Richmond, Que., bridge, in order to protect its line at that point.

In connection with the extension of the Government line from Edmonton, Alta., a calculagraph has been installed to time conversations.

A company has been formed with the title of the Manitou Telephone Co., and a capital of \$25,000, to construct a telephone line from Wabigoon, Ont., into the Manitou mining country.

The Woodstock, Ont., town council has extended the franchise of the Bell Telephone Co. for five years, without rental for use of streets, the company agreeing to put its lines underground.

The proposal to improve the telephone service in Truro, N.S., and to charge increased rates has not met with approval, and the Nova Scotia Telephone Co. has informed the Truro Board of Trade that the position of affairs will remain as at present.

A. Stark, of Toronto, who is the inventor of a new telephone system, is endeavoring to secure the interest of the Hamilton and Kingston, Ont., councils, in order to have it adopted for lines in those cities.

The State Line Telephone Co. has been incorporated at Albany, N.Y., to operate a tele-

phone line connecting Albany, New York city, Syracuse, Rochester, Buffalo, and other places in the state, and in Canada. The capital is \$1,000,000.

The Canadian Telephone Co.'s application to the Dominion Parliament for an act of incorporation has been passed by the House of Commons. A clause has been added to prevent amalgamation with the Bell Telephone Co., and another permitting the company to make agreements with local companies for the interchange of business.

The Bell Telephone Co. has concluded an agreement with the Hamilton, Ont., city council for a renewal of its franchise for a further period of five years. It is given permission to erect poles, etc, with the consent and under the supervision of the city engineer, the company to pay \$1,450 on the execution of the agreement, and \$2,900 a year for five years, in quarterly payments of \$725 in advance, the first payment to be made on Sept. 1, 1903. The new terms include house telephones on party lines of four with 100 free calls a month; other clauses provide that the central energy system is to be installed within a year, when the reduction is to come into effect.

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(Continued from third page of Cover.)

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Steamboats	
Polson Iron Works	Toronto.
Steamboat Signs	
Acton Burrows Co	Toronto.
Steam Couplers	
Safety Car Heating and Lighting Co.	New York.
Steam Shovels	
James Cooper	Montreal.
W. H. C. Mussen & Co.	Montreal.
Steel	
James Cooper	Montreal.
B. J. Coghlin & Co.	Montreal.
Wm. Jessop & Sons	Sheffield, Eng.
Rice Lewis & Son	Toronto.
Steel Buildings	
Dominion Bridge Co.	Montreal.
Steel for Springs	
James Hutton & Co.	Montreal.
Steel Plate	
Jas. W. Pyke & Co.	Montreal.
Steel Tyres	
B. J. Coghlin & Co.	Montreal.
James Hutton & Co.	Montreal.
Lafayette Steel Co.	Philadelphia, Pa.
Jas. W. Pyke & Co.	Montreal.
Structural Metal Work	
Dominion Bridge Co.	Montreal.
Locomotive and Machine Co. of Montreal	
Jas. W. Pyke & Co.	Montreal.
Studs, Engine and Binder	
John Morrow Machine Screw Co. (Ltd.) ..	Ingersoll
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Montreal Steel Co.	Montreal.
Switch Lamps	
The Hiram L. Piper Co.	Montreal.
The N. L. Piper Railway Supply Co.	Toronto.
Switch Ropes	
The B. Greening Co.	Hamilton, Ont.
Switch Targets	
Acton Burrows Co	Toronto.
Tanks and Tank Fixtures	
Ontario Wind Engine and Pump Co.	Toronto.
Telegraph and Telephone Office Signs	
Acton Burrows Co	Toronto.
Tie Plates	
B. J. Coghlin & Co.	Montreal.
Tobacco and Cigars	
The Hudson's Bay Company	
Toilet Paper	
The Hudson's Bay Company	
Tools	
Rice Lewis & Son	Toronto.
Track Jacks	
James Cooper	Montreal.
W. H. C. Mussen & Co.	Montreal.
A. O. Norton	Coaticook, Que.
Track Tools	
Canada Switch and Spring Co.	Montreal.
James Cooper	Montreal.
Rice Lewis & Son	Toronto.
W. H. C. Mussen & Co.	Montreal.
Tramway Equipment	
James Cooper	Montreal.
W. H. C. Mussen & Co.	Montreal.
J. J. Gartshore	Toronto.
Trucks (Electric Car)	
Baldwin Locomotive Works.	Philadelphia, Pa.
Montreal Steel Co.	Montreal.
Trucks (Warehouse and Express)	
Rice Lewis & Son	Toronto.
Turntables	
Dominion Bridge Co.	Montreal.
Varnishes	
McCaskill, Dougall & Co	Montreal.
Vessels	
Polson Iron Works	Toronto.
Waste	
B. J. Coghlin & Co.	Montreal.
Rice Lewis & Son	Toronto.
N. L. Piper Ry. Supply Co.	Toronto.
The Queen City Oil Co.	Toronto.
Wheelbarrows	
James Cooper	Montreal.
Rice Lewis & Son	Toronto.
Windmills	
Ontario Wind Engine and Pump Co.	Toronto.
Window Blinds	
The Hudson's Bay Company	

Wines and Liquors

The Hudson's Bay Company

Wire & Wire Rope

Dominion Wire Rope Co. Montreal.
The B. Greening Co. Hamilton, Ont.
Rice Lewis & Son

Wire, Brass and Steel

Dominion Wire Manufacturing Co. Montreal.

Wire Cloth

The B. Greening Co. Hamilton, Ont.

Wire, Copper

Dominion Wire Manufacturing Co. Montreal.
E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire, Electric

Dominion Wire Manufacturing Co. Montreal.
E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire Goods

Dominion Wire Manufacturing Co. Montreal.

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The Wire and Cable Co. Montreal.

Wire, Telegraph and Telephone

Dominion Wire Manufacturing Co. Montreal.
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Wire, Transmission and Trolley

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Wood Screws

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Yachts

Polson Iron Works

The G.T.R. and the Toronto Junction Stock Yards.—The opening of the Union Stock Yards at Toronto Junction, Ont., has led to some differences between the stock-dealers and the G.T.R. The dealers allege that the G.T.R. is discriminating against the yards at Toronto Junction and giving an undue preference to the yards in Toronto. The G.T.R. sent out the following circular: "Live stock tendered for transportation to Toronto Junction at any station must be receipted for only to Toronto, and not to any particular cattle market; on such our delivery will be to the Western Cattle Market, where shippers must have delivery. Our cars must be unloaded there, and shippers who consigned stock to the Union Stock Yards must either drive them over or reship them. G.T.R. cars will not under any circumstances be furnished for reshipping to Junction Stock Yards. If shippers insist on originally consigning stock to the Junction yards, it must be explained to them that there are no unloading facilities there." Writs have been issued by a number of the dealers asking damages for "wrongfully, wilfully and maliciously detaining cattle delivered by them to the company as common carriers."

Intercolonial Ry. Statistics.—A return presented to the House of Commons recently showed the number of I.C.R. freight cars in use on March 1, 1902, to be 1,012, and the number of days in use 13,100. On the same day in 1903 the number was 1,522, and the days in use 14,942. Of cars of other roads in use on the I.C.R. for the two years the numbers respectively were 548 and 771. The number of ties actually used on the I.C.R. between June 30, 1902, and April 1, 1903, charged to ordinary maintenance, was 543,721. The number purchased in the same period was 175,438, at prices ranging from 15 to 24 cents for hemlock, 18 to 20 cents for spruce, 25 to 28 cents for tamarac, 17 to 25½ cents for cedar, 20 cents for ash; and 20 to 27 cents for pine.

The hackmen of Montreal having failed in their endeavor to compel the Montreal Street Ry. Co. to cease running observation cars for tourists and other sightseers, propose bringing individual actions for damages for loss of trade.

The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Steamship, Express, Telegraph & Telephone supplies, &c.

Accident Insurance

Canadian Ry. Accident Ins. Co. Ottawa, Ont.
Travelers' Insurance Co. Montreal.

Aerated Waters

E. L. Drewry Winnipeg.

Air Brakes & Fittings

Westinghouse Mfg. Co. Hamilton, Ont.

Ales

E. L. Drewry Winnipeg.

Anchors

Rice Lewis & Son Toronto.

Axles

James Hutton & Co. Montreal

Jas. W. Pyke & Co. Montreal.

Rhodes, Curry & Co. Amherst, N.S.

Babbitt

Rice Lewis & Son Toronto.

Blankets & Bedding

The Hudson's Bay Company

Block & Tackle

Dominion Wire Rope Co. Montreal.

Rice Lewis & Son Toronto.

Boat Fittings & Hardware

Rice Lewis & Son Toronto.

Boiler Covering

Mica Boiler Covering Co. Montreal.

Boilers

Polson Iron Works Toronto.

Boiler Tubes

B. J. Coghlin & Co. Montreal.

Jas. W. Pyke & Co. Montreal

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts

Rice Lewis & Son Toronto.

Bolts, Boiler Patch

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Brake Beams

Simplex Railway Appliance Co. Montreal.

Brass and Copper Cloth

The B. Greening Co. Hamilton, Ont.

Brass Castings

St. Thomas Brass Co. St. Thomas, Ont.

Bridge Numbers

Acton Burrows Co. Toronto.

Bridges

Dominion Bridge Co. Montreal.

Buoy Lighting

Safety Car Heating and Lighting Co., New York

Cables, Electric and Feeder

E. F. Phillips Electrical Works, Ltd., Montreal.

The Wire and Cable Co. Montreal.

Car Couplers

Latrobe Steel and Coupler Co., Philadelphia, Pa.

Car Heating

Safety Car Heating and Lighting Co., New York

Car Jacks

James Cooper Montreal.

W. H. C. Mussen & Co. Montreal.

Car Lighting

Safety Car Heating and Lighting Co., New York

Carpets

The Hudson's Bay Company

Cars

Rhodes, Curry & Co. Amherst, N.S.

Car Wheels

Jas. W. Pyke & Co. Montreal.

Rhodes, Curry & Co. Amherst, N.S.

Castings

Montreal Steel Co. Montreal.

Rhodes, Curry & Co. Amherst, N.S.

Cement Machinery

Jas. W. Pyke & Co. Montreal.

Chains

Rice Lewis & Son Toronto.

Coal Haulage Ropes

The B. Greening Co. Hamilton, Ont.

Concrete Mixers

W. H. C. Mussen & Co. Montreal.

Contractors' Plant

James Cooper Montreal.

T. A. Morrison & Co. Montreal.

W. H. C. Mussen & Co. Montreal.

Cotter Pins

Dominion Wire Manufacturing Co. Montreal.

Cross Arms, Top Pins & Side Blocks

The Firstbrook Box Co. Toronto.

Crossing Gates

The N. L. Piper Railway Supply Co. Toronto.

Curtains

The Hudson's Bay Company

Cuts

Acton Burrows Co. Toronto.

Derriek Ropes

The B. Greening Co. Hamilton, Ont.

Derrieks

James Cooper Montreal.

Door Signs

Acton Burrows Co. Toronto.

Dry Goods

The Hudson's Bay Company

Electric Car Route Signs

Acton Burrows Co. Toronto.

Electric Cranes

Dominion Bridge Co. Montreal

W. H. C. Mussen & Co. Montreal.

Enameled Iron Signs

Acton Burrows Co. Toronto.

Engines, Stationary & Marine

Polson Iron Works Toronto.

Engraving

Acton Burrows Co. Toronto.

Toronto Engraving Co. Toronto.

Expanded Metal

Expanded Metal and Fire-Proofing Co. Toronto.

Express Office Signs

Acton Burrows Co. Toronto.

Fencing

Canadian Steel and Wire Co. Hamilton, Ont.

Dominion Wire Manufacturing Co. Montreal.

Page Wire Fence Co. Walkerville, Ont.

Fire-Proofing

Expanded Metal and Fire-Proofing Co. Toronto.

Flags

Rice Lewis & Son Toronto.

The Hudson's Bay Company

Flour

The Hudson's Bay Company

The Ogilvie Flour Mills Co. Montreal.

Foghorns

Rice Lewis & Son Toronto.

Gates

Page Wire Fence Co. Walkerville, Ont.

General Supplies

The Hudson's Bay Company

Grain Elevators

John S. Metcalfe Co. Chicago, Ill.

Groceries

The Hudson's Bay Company

Hardware

Rice Lewis & Son Toronto.

The Hudson's Bay Company

Headlights

N. L. Piper Railway Supply Co. Toronto.

Hose

Rice Lewis & Son Toronto.

Illustrations

Acton Burrows Co. Toronto.

Interlocking Plants

Montreal Steel Co. Montreal.

Iron

Rice Lewis & Son Toronto.

Iron Signs

Acton Burrows Co. Toronto.

Japans

McCaskill, Dougall & Co. Montreal.

Journal Bearings

Jas. W. Pyke & Co. Montreal.

St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry Winnipeg.

Lamps & Lanterns

The Hudson's Bay Company

Rice Lewis & Son Toronto.

The Hiram L. Piper Co. Montreal.

N. L. Piper Railway Supply Co. Toronto.

Launches

Polson Iron Works Toronto.

Life Insurance

Travelers' Insurance Co. Montreal.

Lights, Contractors and Wrecking

James Cooper Montreal.

W. H. C. Mussen & Co. Montreal.

Linoleum and Floor Coverings

The Hudson's Bay Company

Locomotives (Compressed Air)

American Locomotive Co. New York, N.Y.

Baldwin Locomotive Works Philadelphia, Pa.

Locomotive and Machine Co. of Montreal

Locomotives (Electric)

American Locomotive Co. New York, N.Y.

Baldwin Locomotive Works Philadelphia, Pa.

Locomotive and Machine Co. of Montreal

Locomotives (Rack)

American Locomotive Co. New York, N.Y.

Baldwin Locomotive Works Philadelphia, Pa.

Locomotive and Machine Co. of Montreal

Locomotives (Steam)

American Locomotive Co. New York, N.Y.

Baldwin Locomotive Works Philadelphia, Pa.

Canadian Locomotive Co. Kingston, Ont.

James Cooper Montreal.

Locomotive and Machine Co. of Montreal

W. H. C. Mussen & Co. Montreal

The Saxon Engine Works, Chemnitz, Germany.

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The Saxon Engine Works, Chemnitz, Germany

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Mohair

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Nails, Wire

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Numbers

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Oakum

Rice Lewis & Son Toronto.

The Hudson's Bay Company

Oils

Galena-Signal Oil Co., Franklin, Pa., & Toronto.

The Queen City Oil Company Toronto.

Office Signs

Acton Burrows Co. Toronto.

Packing

The N. L. Piper Railway Supply Co. Toronto.

Pinch Bars

The Hiram L. Piper Co. Montreal.

The N. L. Piper Railway Supply Co. Toronto.

Pipe Covering

Mica Boiler Covering Co. Montreal.

Plushes

The Hudson's Bay Company

Porter

E. L. Drewry Winnipeg.

Portland Cement

Rice Lewis & Son Toronto.

Printing

The Hunter, Rose Co. Toronto.

The Mail Job Printing Company Toronto.

Pumps

Rice Lewis & Son Toronto.

Railway Supplies

The N. L. Piper Railway Supply Co. Toronto.

Rail Joints

Montreal Rolling Mills Co. Montreal.

Rails (Now)

James Cooper Montreal.

Drummond, McCall & Co. Montreal.

J. J. Gartshore Toronto.

Rails (for relaying)

James Cooper Montreal.

J. J. Gartshore Toronto.

T. A. Morrison & Co. Montreal.

W. H. C. Mussen & Co. Montreal.

Rice Lewis & Son Toronto.

Jas. W. Pyke & Co. Montreal.

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Dominion Bridge Co. Montreal.

Rope

Rice Lewis & Son Toronto.

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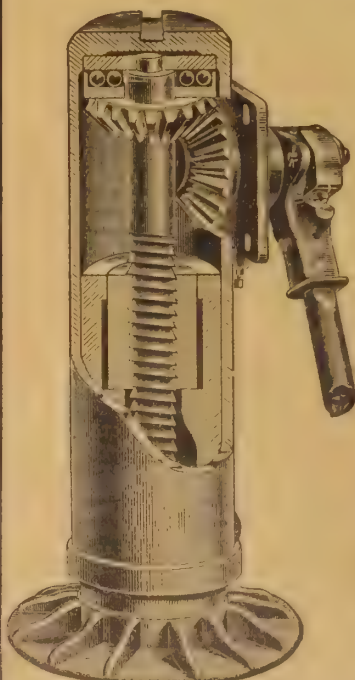
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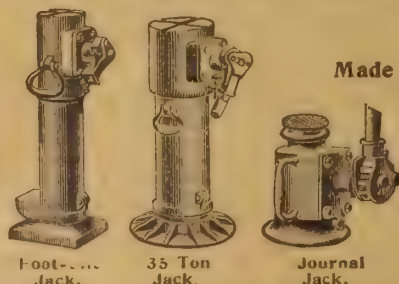
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TORONTO, CANADA, OCTOBER, 1903.

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G.T.R. GUARANTEED STOCK.

The full text of the speech of Sir C. Rivers Wilson, President, in explanation of the reasons for the issue of the additional amount of guaranteed stock, authorized at the general meeting of shareholders in London, Aug. 24, has been published.

The President said the meeting had been called in pursuance of a section in the act which gave powers to the directors on behalf of the company from time to time to create and issue, in addition to the amount of £5,220,000 of 4% guaranteed stock at present existing, a further amount, amounting in the aggregate to £10,000,000. The stock so issued would be applied for the general purposes of the company. It would rank *pari passu* with the existing 4% guaranteed stock, and the holders of it would be entitled to all the rights and privileges at present enjoyed by the holders of that security. By the deed of union of 1882 a fusion was effected between the Grand Trunk Ry. of Canada and the Great Western of Canada. The fusion of these two companies was in its inception what might be called an administrative union; it did not amalgamate and combine the stocks of the two companies, which remained distinct. It was provided that the net receipts of the united undertaking, after providing interest on the debenture stock and other preference securities, should be divided in the following proportions, viz., 70% was to be attributed to the holders of the preference and ordinary stocks of the old Grand Trunk, and 30% to the holders of the preference and ordinary stocks of the Great Western, with this qualification, however, that if the amounts so provided were insufficient to pay 3% to the holders of the ordinary stock of the Great Western Ry., the balance of the 30% was to be made up out of the 70% attributed to the Grand Trunk, and to be paid before their preferences. Certain other privileges were accorded to these two securities of the Great Western. In the case of the Great Western preference stock, which was a cumulative stock, and in the case of the ordinary stocks, it was provided that, in the event of the amount earned being more than sufficient to pay 3%, that should belong to the ordinary stocks. This arrangement and other arrangements arising out of the act of union of 1882 were found to be of a rather complicated nature, and a certain amount of dissatisfaction was experienced by the holders of these securities. This dissatisfaction found its expression at the meeting held in March, 1883; and at that time there was a certain agitation going on as to the advisability of dividing the ordinary shares of English railways into preferred ordinary and deferred ordinary. Partly on account of this question being very much in discussion at the time, and partly owing to the dissatisfaction which arose out of the arrangements under

the act of union, resolutions were passed in March, 1883, which resulted in the Grand Trunk Ry. Act of 1884. The act of 1884 might be taken as a complement to the deed of union of 1882, because, whereas under the arrangement of 1882 the fusion of the two companies was really an administrative fusion, under the act of 1884 the stocks of the two companies were to all intents and purposes combined and amalgamated. The act of 1884 provided for the creation of a new stock, to be called the guaranteed 4% stock; and it was enacted that the holders of the Great Western 5% preference—that stock



W. P. HINTON,
General Freight and Passenger Agent, Canada
Atlantic Ry., and President Canadian
Freight Association.

amounting at that time to £506,000—should receive of this new 4% guaranteed stock £125 for each £100 of their holding, thereby securing them in their income of 5%. It was also arranged that they should receive £20 in ordinary stock in respect of their holding to compensate them for the cumulative privileges they would lose. The holders of Great Western ordinary stock were to receive £75 for each £100 of their holding, and, inasmuch as they would lose the contingent privilege, they had allocated to them ordinary stock of the same amount as their own holdings. The total of the preference and ordinary Great

Western stocks, so dealt with and exchanged for the new 4% guaranteed stock, amounted to £6,651,000, and were now represented by the £5,220,000 guaranteed 4% stock. The proprietors would wish to know the reasons which had led the board to obtain from the Dominion of Canada this act. The reasons were very simple. He had stated them at the last general meeting, and they met with the approval of the shareholders present. Up to the present time it had been the practice of the company to raise money for general purposes in 4% debenture stock, and the reason was obvious, especially during the past few years, owing to the much more advantageous position which that security had held in the market as compared with the junior securities. Since the present board took office, they had issued, altogether, 4% debenture stock amounting to £3,858,000, but no less than £1,723,000 of this issue represented an exchange for terminal bonds and other securities bearing a much higher rate of interest—6% and 5%. There only remained, therefore, an expenditure incurred for the general purposes of the company, since the present board took office, of £2,135,000, which was a small amount, and rather indicated a conservative, economical, and discreet management of the finances, when it was remembered that during that period they had almost reconstructed and re-equipped the whole system. The total amount of 4% debenture stock at present in existence was £15,134,731, the annual charge for which amounted to £605,389. It appeared to the directors that, in view of the greatly increased credit of the company, it was no longer desirable to go on creating new capital and more fixed charges in front of the guaranteed and preference stock. It was evident that an abandonment of that system must be very much to the advantage of the 4% debenture stock itself, and it would also very much strengthen all junior securities, both the guaranteed and the preference stocks. The amount the board asked latitude to issue was considerable—being an increase from £5,220,000 to £10,000,000. But they had been in the habit of taking these general powers from time to time from the Parliament of the Dominion of Canada, with a view to using them, as necessity might arise, for the improvement of the road and the general purposes of the company. Therefore, they must not run away with the idea that because they had these large powers there was any idea of putting them into operation, except in the manner they had done in the past with the 4% debenture stock. He then moved: "That the Grand Trunk Railway Act, 1903, be and is hereby assented to and accepted, and the directors of the company are hereby authorized to create and issue the 4% guaranteed stock under the powers conferred by the said act."

The motion was seconded by Jos. Price, Vice-President, and carried.

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Montreal.

Canadian Freight Association.

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R. MacInnes, Montreal; SEC.-TREAS., J. Earls, To-
ronto.

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Toronto.

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J. Miller; TREASURER, J. D. Scott.
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rooms, Toronto Junction.

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Acton Burrows, F. H. Hopkirk, J. Powell, F. Sutherland,
SECRETARY, W. H. Rosevear, Jr., Montreal;
TREASURER, S. F. Underwood, Montreal.
MEETINGS at Windsor Hotel, Montreal, 1st Tuesday
of each month, 8 p.m., except in June, July and Aug.

Canadian Roadmasters' Association.

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PRESIDENT, J. R. Brennan, Ottawa, Ont.; SECRETARY-
TREASURER, J. Drinkwater, Winchester, Ont.
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TREASURER, H. Irwin; SECRETARY, C. H. McLeod;
LIBRARIAN, E. G. M. Cape.
MEETINGS AT 877 Dorchester St., Montreal, every
alternate Thursday, 8 p.m.

Dominion Marine Association.

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PRESIDENTS, J. J. Long, Collingwood, Ont., E. W. Rath-
bun, Deseronto, Ont.; SEC.-TREASURER, F. King, King-
ston, Ont.

Canadian Ticket Agents' Association.

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PRESIDENT, A. L. de Martigny, Sorel, Que.; SEC-
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de Martigny; Owen Sound, J. M. Wilson.

NEXT ANNUAL MEETING of the Grand Council in
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Niagara Frontier Summer Rate Committee.

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Toronto.

The Imperial Limited, the tri-weekly fast
trans-continental C. P. R. express was run
until Sept. 30 this year. In 1902 the special
summer service was discontinued on Sept. 19.

The Montreal Transportation Co.'s saw
mills and machine shop near Cataragui bridge,
Kingston, Ont., were destroyed by fire Sept.
21. The loss is estimated at \$10,000, which is
partly covered by insurance.

The operators of the observation cars on
the Montreal Street Ry. who were charged
by the cabmen with selling tickets on the
sidewalk without a permit from the city coun-
cil, have secured a favorable decision from
the courts.

The Montreal Street Ry. Mutual Benefit
Association has been officially authorized by
the Quebec Government under an order-in-
council dated Sept. 14. The purpose and
rules of the association were published on pg.
303 of our Sept. issue.

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The Canadian Northern Ry. has established
a parcel checking system at its Winnipeg sta-
tion in connection with the local trains, for the
convenience of travellers who wish to remain
over in the city. The service is under the
charge of W. Pratt, jr., Superintendent of
Dining and Sleeping cars and news service.

The Eugene F. Phillips Electrical Works
(Ltd.), has been licensed to do business in
Ontario, under the provisions of the act re-
specting Extra Provincial companies. The
company may manufacture and deal in tele-
graph, telephone and other wires, electrical
supplies, etc.; using therefor a capital not
exceeding \$30,000. J. P. Thomson, of To-
ronto, has been appointed its attorney.

In view of the recent decision of the Judi-
cial Committee of the Privy Council in respect
of the Ontario Lord's Day Act, a deputation
waited on the Dominion Government asking
for legislation to ensure a better observance
of Sunday throughout the Dominion. The
deputation referred particularly to the increas-
ing travel on Sunday and the applications
by electric railways for parliamentary author-
ity to run cars on that day. Sir Wilfrid Laur-
ier promised that the Government would give
consideration to the matter.

C.P.R. ANNUAL REPORT.

Following is the 22nd annual report, addressed to the shareholders:—

The accounts of the company for the year ended June 30, 1903, show the following results:—

Gross earnings	\$43,957,373
Working expenses	28,120,527
Net earnings	\$15,836,845
Interest on deposits and loans	\$ 614,932
Interest due from the Duluth, South Shore & Atlantic Ry. Co. on Consolidated bonds held by the company, \$604,280—less advanced by the company, \$142,280	462,000
Interest from Minneapolis, St. Paul and Sault Ste. Marie Ry. Co. on bonds held by the company	159,720
Interest from Mineral Range Rd. Co. on bonds held by the company	50,160
	1,286,812
	\$17,123,658
Deduct fixed charges	7,052,197
Surplus	\$10,071,460
Deduct amount applied against cost of steamships	150,000
	\$9,921,460
From this there has been charged a half-yearly dividend on Preference Stock of 2% paid April 1, 1903.	\$650,000
And a half-yearly dividend on Ordinary Stock of 2½%, paid April 1, 1903.	2,112,500
	2,762,500
	\$ 7,158,960
From this there has been declared a second ½-yearly dividend on Preference Stock of 2% payable October 1, 1903.	\$ 650,000
And a second ½-yearly dividend on Ordinary Stock of 3%, payable October 1, 1903.	2,535,000

The working expenses for the year amounted to 63.97% of the gross earnings, and the net earnings to 36.03%, as compared with 62.44 and 37.56%, respectively, in 1902.

Your directors deemed it desirable to acquire for your company control of the Kingston & Pembroke Ry., extending from Renfrew, on your main line, to Kingston, on Lake Ontario, a distance of 104 miles. It has been arranged that this be done at a cost of \$848,744, and you will be asked to approve the expenditure—22,602 shares of the preferred stock, and 35,182 shares of the common stock, constituting about 83 per cent. of the whole capital of the Kingston & Pembroke Ry. Co. will be deposited with your treasury securities. The line is now being operated under working arrangements with that company, pending the execution of a formal lease which will be submitted for your approval.

For several years past your company has been operating the Calgary & Edmonton Ry., for account of the owners, receiving in return the benefit of all the traffic in either direction between points on the Calgary & Edmonton line, and points reached by your system. The country along the line has been settled with considerable rapidity, and the contributed traffic has grown to large proportions. Under these circumstances, your directors thought it wise to prevent the possibility of the railway passing into unfriendly hands, and, therefore, they entered into an agreement to lease the line, extending from Macleod to Edmonton, in Alberta, a distance of 296 miles, for a period of ninety-nine years, guaranteeing by way of rental 4% per annum on the Calgary and Edmonton Ry. Co.'s consolidated debenture stock, amounting to £1,121,700. To insure the complete control of the property and its franchises, your directors contracted to purchase for your company all of the capital stock of the Calgary and Edmonton Ry. Co., for the sum of \$500,000. You will be asked to formally sanction their action and to approve the lease.

An agreement has been made with the Lindsay, Bobcaygeon and Pontypool Ry. Co. for the lease, on its completion of that company's line from Burketon, on the main line

of your Ontario and Quebec section, to Lindsay and Bobcaygeon, a distance of about 40 miles. The rental to be paid is 40% of the gross earnings, but not less than \$20,000 per annum, with the option to your company of acquiring the full ownership of the property at any time within twelve years, by undertaking to pay an increased rental not exceeding in all \$28,000 per annum. The agreement will be submitted for your approval.

The residue of the issue of preference stock previously authorized by you for the purposes of the company, amounting to £273,082, was created and sold during the year. 4% consolidated debenture stock to the amount of £764,350 was also created and sold, and the proceeds were used to cover the cost of the Pacific coast steamships, and for the acquisition of the bonds of other companies whose lines constitute a portion of your system, the interest on which had, with your authority, been guaranteed by your company.

The land sales for the year amounted to 2,639,617 acres for the price of \$9,695,673, being an average of \$3.67 per acre.

During the year the guarantee of your company as to interest was endorsed on consolidated bonds of the Minneapolis, St. Paul and Sault Ste. Marie Ry. Co. to the amount of \$2,454,000, representing the cost of 122 7-10th miles of additional railway constructed by that company.

To meet the pressing requirements of settlers, many of whom came into the country during the past two years, your directors authorized the construction of a railway between Regina, on the main line, and Arcola, the present terminus of the Pipestone branch, a distance of about 113 miles; and an arrangement has been made whereby the Manitoba and North-Western Ry. will be extended an additional distance of 33 miles. You will be asked to approve the construction of these lines and to authorize the creation and sale of sufficient 4% consolidated debenture stock for the purpose.

The original \$25,000,000 of 5% land grant bonds having been satisfied, the mortgage securing them has been cancelled. There remain outstanding \$15,000,000 land bonds bearing interest at the rate of 3½% per annum guaranteed by the Dominion Government. The proceeds of the sales of lands covered by the mortgage securing these bonds will be deposited with the Dominion Government in accordance with the terms of the statute; \$500,000 has been thus deposited during the past year, and the amount due on deferred payments will go far toward liquidating the whole amount in the next few years, when the residue of your lands will be relieved of the mortgage and the bonds will become a Government obligation; in the meantime the Government pays interest on the deposits at the rate of 3½%.

Under the authority of the resolution passed at the last annual meeting, your directors purchased from the Elder-Dempster Co. fifteen steamships, constituting that company's Canadian-Atlantic fleet, the purchase price of the vessels and of the goodwill of the sellers being £1,417,500 sterling. This amount has been temporarily advanced from your surplus earnings pending the issue and sale of 4% consolidated debenture stock to a like amount, which you will be asked to authorize at this meeting. An unfortunate accident resulted in the loss of one of the freight steamers. The amount required in excess of the insurance to replace the vessel will, of course, be charged against revenue.

Of the proceeds of the sale of \$19,500,000 ordinary shares, there had been expended to the end of the fiscal year \$17,228,953, and there were orders outstanding for cars and locomotives undelivered amounting to \$4,221,865. Since then additional orders have been placed to the amount of \$1,351,000, and it is

proposed to continue the policy of increasing the rolling stock equipment as rapidly as circumstances will permit, until the company is well ahead of its immediate requirements. When these contracts have been filled, the proceeds of the issue of common shares, as well as the amount of \$3,000,000 appropriated from surplus earnings, will have been absorbed. The cost of cars and locomotives purchased during the last couple of years has been substantially increased, because of the necessity for getting so many of them outside of Canada, and paying the Canadian duty on their importation. In the near future, when your own shops have been completed, it is expected that you will be able to build yourselves most of the cars and locomotives required, thus saving the manufacturers' profit and the duty. Your directors will ask authority to expend \$5,000,000 during the next year on various classes of equipment in addition to all orders that have been placed up to this time.

Many of the new works, on which capital has been expended are being carried out on a more comprehensive scale than was originally contemplated, and the increase of nearly 50% within three years in the tonnage moved annually has made it imperative that you should, for the convenience of the public and your own financial advantage, provide forthwith many additional facilities, calculated to assist in promoting promptness and economy in the handling of your traffic, that under ordinary conditions might have been spread over a number of years. Notwithstanding your large outlay in the past for lands, tracks, buildings and other works at your more important terminals like St. John, Montreal, Toronto, Ottawa and Winnipeg, the facilities at most of these points are quite inadequate for present demands, and as a result there is frequent congestion, resulting in inconvenience and expense to everybody concerned. With a view to remedying these conditions, and in order that the work of bringing your property to a high standard of efficiency may be continued without cessation, you will be asked to authorize the directors to expend capital for these general purposes to an amount not exceeding \$4,500,000.

CONDENSED BALANCE SHEET, JUNE 30, 1903.

Cost of railway and equipment, Ocean, lake and river steamships	\$242,769,210
Less amount applied in reduction of cost	1,968,224
	3,835,199
Pacific coast steamships	956,150
Atlantic steamships	6,979,783
Acquired securities held (cost) ..	43,470,868
Hotels, buildings and properties held in trust for the company ..	2,266,634
Deferred payments on lands and town site sales	13,914,480
Advances:—	
To Montreal & Atlantic Ry., secured by \$500,000 first mortgage bonds	424,144
To Duluth, South Shore & Atlantic Ry., car trusts, etc.	236,213
Advances to new lines under construction	2,412,903
Material and supplies on hand ..	5,408,788
Station and traffic balances, accounts receivable	4,918,698
Miscellaneous securities and advances	1,606,902
Imperial and Dominion Governments:—	
Accounts due for mail transportation	236,687
Cash in hand	19,145,168
Less amount temporarily advanced for purchase Atlantic steamships pending issue of securities	6,972,556
	12,172,612
	\$341,699,276

In addition to the above assets, the company owns 12,081,776 acres of land in Manitoba and the Territories (average sales past year \$3.67 an acre), and 3,759,418 acres in British Columbia

Capital stock	\$84,500,000
4% preference stock	32,500,000
4% consolidated debenture stock ..	67,252,252

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturers of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

Mortgage Bonds—	
First mortgage bonds, 5%.....	\$34,998,633
Canada Central Ry., 6%.....	973,334
Due Province of Quebec on Q.M.O. & O. & North Shore Ry.....	7,000,000
Algoma branch, 1st mortgage.....	3,650,000
North Shore Ry., 1st mortgage.....	616,119
Land grant bonds—	
Guaranteed 3½ land bonds.....	15,000,000
Less amount paid Dominion Government towards redemption.....	500,000
Current accounts, pay rolls and traffic balances.....	14,500,000
Interest on funded debt and rental of leased lines:—	
Coupons due July 1, 1903, and including coupons overdue, not presented.....	1,487,015
Accrued to date, not due.....	285,055
Equipment replacement fund.....	1,772,070
Cash subsidies from Dominion and Provincial Government and municipalities.....	588,543
Land grant:—	
Sales of land and town sites.....	37,119,561
Surplus.....	18,846,175
	\$341,609,276

FIXED CHARGES FOR YEAR ENDED JUNE 30, 1903.

1st Mortgage Bonds 5% due July 1, 1915.....	\$1,749,931 66
Province of Quebec, 4 1-20%.....	283,500 00
North Shore Ry. 1st Mortgage 5% Bonds due April 20, 1904.....	267 66
Canada Central Ry. 2nd Mortgage 6% Bonds due Nov. 1, 1910.....	58,400 00
St. Lawrence & Ottawa Ry. 4% 1st Mortgage Bonds due June 15, 1910.....	38,933 34
Man. South-Western Colonization Ry. 1st Mortgage 5% Bonds due June 1, 1934.....	127,200 00
Toronto, Grey and Bruce Ry. Rental.....	140,000 00
Ontario and Quebec Ry. Debenture Stock 5%.....	975,129 56
Ontario and Quebec Ry. (Ordinary Stock) 6%.....	120,000 00
Atlantic & North-West Ry. 1st Mortgage Bonds (less Government proportion) due Jan. 1, 1937.....	136,333 34
Algoma Branch 5% First Mortgage Bonds due July 1, 1937.....	182,500 00
Rental, Farnham to Brigham Jct.....	1,400 00
Rental, Mattawamkeag to Vanceboro.....	23,800 00
Rental, New Brunswick Railway system.....	372,829 74
Rental of terminals at Toronto.....	32,957 89
Rental of terminals at Hamilton.....	32,791 39
Rental, Hamilton Junction to Toronto.....	40,027 86
Rental, St. Stephen and Milltown Ry.....	2,050 00
Interest on Montreal and Western Ry. purchase.....	20,008 73
Interest on equipment leases.....	93,486 06

4% DEBENTURE STOCK.

Issue for general purposes.....	£ 3,933,748
Issue for China and Japan steamers.....	720,000
Issue for Souris branch.....	1,004,000
Issue to retire Canada Central Ry. 1st Mortgage Bonds.....	250,000
Issue for branch lines.....	581,250
Issue for Pacific coast steamers.....	225,000
Issue for acquiring mortgage bonds of roads of which principal or interest is guaranteed by C.P.Ry.....	7,104,958

£13,818,956 \$2,620,560 04
\$7,052,197 27

EARNINGS FOR THE YEAR ENDED JUNE 30, 1903.

Passengers.....	\$11,001,973 71
Freight.....	28,502,081 76
Mails.....	657,905 26
Express.....	909,698 02
Parlor and Sleeping Cars.....	637,642 05
Telegraph, Grain Elevators and Miscellaneous, including profit on Pacific steamships.....	2,248,672 24
Total.....	\$43,957,373 04

STATEMENT OF WORKING EXPENSES FOR THE YEAR ENDED JUNE 30, 1903.

Conducting transportation.....	\$ 6,434,321 57
Maintenance of way and structures.....	6,723,241 17
Motive power.....	8,089,111 77
Maintenance of cars.....	2,487,976 69
Parlor and sleeping car expenses.....	144,349 83
Expenses of lake and river steamers.....	470,773 06
General expenses.....	2,323,315 02
Commercial telegraph.....	547,438 15
Total.....	\$28,120,527 26

DESCRIPTION OF FREIGHT CARRIED—YEAR ENDED JUNE 30.

	1902	1903
Flour, brls.....	4,921,993	5,110,757
Grain, bush.....	52,719,706	63,822,710
Live stock, head.....	963,742	1,103,686
Lumber, ft.....	1,033,569,377	1,190,378,217
Firewood, cords.....	204,963	268,401
Manufactured articles, tons.....	2,288,234	2,665,260
All other articles, tons.....	2,571,136	2,942,736

FREIGHT TRAFFIC—YEAR ENDED JUNE 30.

	1902	1903
Tons carried.....	8,769,934	10,180,847
Tons carried one mile.....	3,247,922,167	3,862,242,993
Earnings per ton per mile.....	0.75 cts.	0.74 cts.

PASSENGER TRAFFIC—YEAR ENDED JUNE 30.

	1902	1903
Passengers carried.....	4,796,746	5,524,198
Passengers carried one mile.....	534,777,135	635,855,533
Earnings per passenger per mile.....	1.75 cts.	1.73 cts.

TRAFFIC TRAIN EARNINGS—YEAR ENDED JUNE 30, 1903.

	Mileage.	Earnings.	Earnings per Traffic Train Mile.
Passenger.....	9,699,891	\$12,874,480 00	\$1.33
Freight.....	14,744,064	27,671,887 20	1.88
Total.....	23,053,979	\$40,546,367 20	\$1.76

The above earnings of traffic trains include earnings from mails, express and sleeping cars, but do not include ocean, lake and river steamers, telegraph, elevators, rents, etc., the net earnings from which amounted to \$2,392,794.63.

EXPENSES PER TRAFFIC TRAIN MILE—YEAR ENDED JUNE 30, 1903.

	Expenses.	Expenses per Traffic Train Mile.
Maintenance of way and structures.....	\$ 6,723,241 17	0.292
Motive power.....	8,089,111 77	0.390
Maintenance of cars.....	2,487,976 69	0.108
Traffic and general expenses.....	8,901,986 42	0.386
	\$27,102,316 05	1.176
Mileage included in C.P.R. traffic returns.....	7,748.4	
Mileage in other lines worked.....	872.9	
Mileage under construction.....	364.0	
	8,985.3	
Mileage of Minneapolis, St. Paul & Sault Ste. Marie Ry.....	1,469.5	
Mileage of Duluth, South Shore & Atlantic Ry.....	565.0	
	2,034.5	
	11,019.8	

Minneapolis, St. Paul and Sault Ste. Marie Railway.

Following are extracts from the report for the year ended June 30, presented at the annual meeting in Minneapolis, Sept. 15:

	1902.	1903.
Gross earnings from all sources.....	\$7,293,743.26	\$6,257,591.47
Operating expenses.....	3,719,922.63	2,941,627.40
Net earnings.....	3,573,820.63	3,315,964.07
Fixed charges, taxes, etc.....	1,909,323.20	1,729,462.59
Surplus.....	1,664,497.43	1,586,501.48

The increase in gross earnings was \$1,036,151.79 or about 16.5%, while the net earnings increased but \$257,856.56 or about 7.8%. Several causes contributed to the increased expenses and decreased net results; the abnormal conditions affecting the fuel supply resulting in inferior coal at higher prices; the material increase in the cost of other supplies and the demands for increased compensation from every class of labor; also the increased cost of more substantial buildings and more modern engines to replace those worn out or obsolete; the cost of replacing temporary wooden bridges with permanent steel structures and the fact that many minor items for improvements formerly carried to capital account, but now charged direct to operating expenses, were active factors in the increased cost of operations.

The operating expenses were 51.4% of the gross earnings compared with 47.3% the preceding year; notwithstanding the increase the percentage compares very favorably with the average for the past four or five years.

The standard of the company's equipment has been fully maintained and strengthened by the addition of the following equipment: 12 locomotives; 8 sleeping cars, including four tourist sleepers; 7 first-class passenger cars; 5 baggage cars; 1 dining car; 300 box cars, 200 flat cars; 50 refrigerator cars; a wrecking crane of the most modern type, besides a steam shovel and various smaller equipment.

The mileage was increased by the completion of a line from Braddock to Bismarck, N.D., about 41 miles. The additional line under construction this year, including an extension of the Birchwood line and a branch line running north from Glenwood, Minn., will add about one-tenth to the present mileage.

The entire Wisconsin and Peninsular Division from Minneapolis to Sault Ste. Marie has been relaid with heavy rails and 80 lb. rails are being laid from Minneapolis to Hoffman, Minn., about 145 miles.

During the year the company acquired property for terminal facilities at St. Paul, at a cost of about \$321,000, and additional grounds at Minneapolis at a cost of \$55,000. When these shall have been fully improved it will have independent terminals as favorably located as any in the Twin Cities.

The grain crop tributary to the company's road was somewhat better than the previous year and at this writing a crop of at least equal quantity and quality is practically assured for this year; the promise of higher prices, however, should reflect favorably on the coming year's earnings by the increased purchasing power of the producers.

The immigration and settlement along the line of both east and west divisions continues satisfactory and cannot but result in greater stability of revenue.

The mileage owned and operated is 1,430.15 and 23.13 miles of spur lines, total 1,453.28 miles. In addition the company has trackage facilities over 18.52 miles of terminal property in Minneapolis, St. Paul and Sault Ste. Marie.

EARNINGS AND EXPENSES.

Passenger.....	\$1,524,378.01
Freight.....	5,254,735.41
Express, mail and miscellaneous.....	458,150.86
	\$7,237,264.28
Maintenance of way and structures.....	\$ 800,791.71
Maintenance of equipment.....	661,058.37
Conducting transportation.....	2,008,027.42
General expenses.....	160,045.13
	\$3,719,922.63
Net earnings from operation.....	\$3,517,341.65

REVENUE FROM OTHER SOURCES.

Interest, discount and exchange.....	\$ 54,248.98
Interest on bonds and stock owned.....	2,230.00
	56,478.98
Total income.....	\$3,573,820.63

OTHER PAYMENTS.

Interest on bonds.....	\$1,428,114.60
Taxes.....	394,938.64
Rental of terminals.....	84,066.34
Interest on equipment notes.....	2,203.62
	1,909,323.20

Surplus earnings.....	\$1,664,497.43
Deduct amount appropriated for additions and betterments.....	200,000.00
Net surplus for year.....	\$1,464,497.43

The expenditure account for construction of new lines and equipment contains these items: Rice Lake line—extensions of same, \$48,693.19; Polk county line, \$23,964.88; Missouri river division extensions, \$321,220.64; Rapid river branch—extension from Trenary, \$43,590.47; Glenwood extension, \$221,372.43; Tony branch line, \$15,762.74; preliminary surveys, \$2,508.77; terminal property St. Paul and Minneapolis, \$376,494.67; betterments to main line, 251,755.45; new equipment, \$774,851.98; joint terminals, Sault Ste. Marie, \$11,288.18; \$2,091,503.40; less refund by St. Paul Union Depot Company, \$192.85. Total, \$2,091,310.55.

RAILWAY FINANCE, MEETINGS, ETC.

Bellingham Bay and British Columbia Ry.—Officials state that the press reports recently current that the line was about to be sold to the Union Pacific Rd. are without foundation.

British Columbia Electric Ry. Co.—Earnings and expenses for July:—

GROSS EARNINGS.	1902.	1903.	Increase or Decrease.
Railway—Vancouver division	\$16,277	\$18,718	\$2,441+
Victoria "	9,901	10,567	666+
Westminster "	9,822	13,534	3,712+
Lighting—Vancouver division	8,719	13,338	4,619+
Victoria "	4,499	5,688	1,189+
	49,218	61,845	12,627+
Less working expenses.....	29,438	32,904	3,466+
	19,780	28,941	9,161+
Renewal funds.....	4,222	4,988	766+
Net income.....	15,558	23,953	8,395+
Aggregate gross earnings, July 1, to July 31.....	49,218	61,845	12,627+
Aggregate net earnings, July 1, to July 31.....	\$15,558	\$23,953	\$8,395+

Canada Atlantic Ry.—In addition to the annual meeting of the shareholders called for Sept. 29, a special meeting will be held on the same day for the purpose of taking into consideration the amended and extended powers of the company, and if deemed advisable to authorize the exercise of all or any of the powers of the company for dealing with the stock and bonds of the company; and for other purposes in connection with the stock and bonds of the company.

Canadian Northern Ry. Earnings:

	1902.	1903.	Increase or Decrease.
July.....	\$254,800	\$132,000	\$122,800+
Aug.....	250,800	131,200	119,600+
	\$505,600	\$263,200	\$242,400+

Working expenses for July \$165,600, against \$80,900, making net earnings \$89,200, against \$51,400 for July, 1902.

Chateaugay and Northern Ry.—The annual meeting was held in Montreal, Sept. 16, when formal business only was transacted. The officers re-elected were: President, D. Murphy, Ottawa; Vice-President, H. M. Melville, Boston, Mass.; Managing Director, J. P. Mullarkey, Montreal.

Dominion Atlantic Ry.—Gross earnings for July \$126,000, against \$122,284 for July, 1902; making for seven months to July 31, \$492,300, against \$502,244 for same period 1902.

Grand Trunk Ry.—Grand Trunk stocks have certainly given a good account of themselves recently in spite of the dullness in other departments. The signal for the rise was the publication of the July working statement last Saturday. Previous to that these stocks had certainly been comparatively firm, because of the reassuring statements made by the President in regard to capital matters, at the special meeting on Aug. 24, and also on account of the low rates at the last settlement, and the apparent existence of a "bear" account. In our city article last week we said: "Grand Trunk stocks have been on the whole a strong market. The publication of the July statement, due to-day, is awaited with some anxiety, though it is hoped that not less than £15,000 net increase will be shown." As a matter of fact a much keener interest was taken in the monthly statement than in that for the half-year which preceded it. Our es-

timate proved to be within the mark, for the net increase on the entire system was £21,500. As the net outcome of a gross increase of £124,000, this does not appear very striking, but read with the context, so to speak, it is very encouraging. The preceding six months showed large gross increases, but no net gains—in fact, during the past half-year a gross addition to receipts on the main line of about £400,000 did little more than enable the company to mark time. Holders of the third preference and ordinary stocks, who have never been able to put the proper value upon the conservatism of the board, began to express the view that the directors did not intend to distribute more than the 1% dividend paid on the third preference for 1902, whatever the gross increases happened to be. All the surplus profit, they imagined, was being devoted to the improvement of the system in every conceivable way. The G.T.R. board probably well understand the value to be placed upon these murmurs from the junior stockholders, and were not at all likely to be affected by even the threats made in some quarters. The July statement has put an end to these faint signs of discontent, and the immediate outlook is regarded as much more favorable to the junior stockholders. The gross increase of £31,400 for the last ten days of August, published on Thursday, was also regarded with favor, and it is hoped that the August net result will be not less encouraging than that for July, particularly as the latter is understood to contain provision for an accident. To the end of July the statistical position shows that over 1¼% is being earned on the third preference, on the assumption that no further improvement is shown during the remainder of the year. The board does not seem to have relaxed its commendable efforts to strengthen the property—indeed, it put £15,000 additional aside for bridge

American Locomotive Company

BUILDERS OF LOCOMOTIVES FOR ALL CLASSES OF SERVICE.

President, S. R. CALLAWAY.
Vice-President, A. J. PITKIN.

Secretary, LEIGH BEST.
Second Vice-President, R. J. GROSS.

Treasurer, C. B. DENNY.
Mech. Engr., J. E. SAGUE.



SCHENECTADY WORKS, Schenectady, N. Y.
BROOKS WORKS, Dunkirk, N. Y.
PITTSBURG WORKS, Allegheny, Pa.
RICHMOND WORKS, Richmond, Va.

COOKE WORKS, Paterson, N. J.
RHODE ISLAND WORKS, Providence, R. I.
DICKSON WORKS, Scranton, Pa.
MANCHESTER WORKS, Manchester, N. H.

GENERAL OFFICE — 25 Broad Street, NEW YORK CITY.

renewals in the past six months. Even the junior stockholders must also admit that but for past conservatism the road could not possibly deal with the enormous volume of traffic now being handled.—*Railway Times*, London, Eng., Sept. 5.

The officials at Montreal state that the persistent rumors that the G. T. R. has acquired the Wisconsin Central Rd., thereby securing an entrance into Minneapolis, Minn., are altogether without foundation.

Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$ 102.75+
Feb.....	9,321.75	8,498.39	823.36+
Mar.....	10,195.12	9,761.57	433.55+
April.....	10,532.55	10,025.66	506.89+
May.....	10,768.11	11,126.66	358.55-
June.....	11,843.82	11,528.19	315.63+
July.....	15,942.37	14,834.09	1,107.68+
Aug.....	16,451.49	17,177.12	725.63-
	\$95,922.54	\$93,716.86	\$2,205.68+

Halifax and Yarmouth Ry.—Negotiations are in progress for the sale of this line to Mackenzie, Mann & Co., for incorporation in the Halifax and Southwestern Ry.

The H. and Y. Ry. extends from Yarmouth to Barrington Passage, N.S., 50.10, with 2.83 miles of sidings, all laid with 56 lb. steel rails. The company has a paid-up capital of \$51,000 and has issued \$450,000 of bonds; and up to June 30, 1902, had received as subsidies \$90,400 from the Dominion Government; \$96,000 from the Nova Scotian Government, and \$5,000 from municipal subsidies. The Nova Scotian Government has authorized the payment of further subsidies since June 30. The total cost of the line and equipment was \$941,918.46. The equipment consists of four locomotives; seven 1st class cars; two baggage, mail and express cars; eight cattle, freight and box cars; 28 platform cars and one tool car. During the year ended June 30, 1902, the line was in operation from Yarmouth to Pubnico, 30.80 miles; but the remaining 19.30 miles from Pubnico to Barrington Passage has since been placed in operation. The report of the year showed: train mileage—passenger, 598; freight, 764; mixed, 44,545; total, 45,907 miles; engine mileage, 48,454 miles. Passengers carried, 36,157; freight carried, 8,071 tons. The income was: passengers, \$15,363.83; freight, \$7,716.26; mails and express, \$1,974.67; miscellaneous, \$859.20; total, \$25,893.96. Net earnings, \$6,119.37.

Hampton and St. Martin's Ry.—A company of St. Martin's, N.B., business men has arranged to operate the H. and St. M. Ry., and are putting it in order prior to re-opening it for traffic early in Oct. The H. and St. M. Ry. extends from Hampton on the I.C.R., to St. Martin's, 29.00 miles, and has half a mile of siding, all of which is laid with 50-lb. steel rails. It has issued \$100,000 of stock, and \$145,000 of bonds, and has received subsidies to the extent of \$83,612.54 worth of rails from the Dominion Government, and \$145,600 from the New Brunswick Government. The total cost of the line and equipment was \$245,000. During the year ended June 30, 1902, it ran 12,600 miles by mixed trains, carrying 4,637 passengers and 8,843 tons of freight. Its receipts amounted to \$7,275.93, including \$2,510.53 from passengers and \$4,352.10 from freight. There was a loss of \$2,562.12 in the operation of the line during the year, and a floating indebtedness of \$6,183.13.

Hereford Ry.—At the annual meeting of shareholders of the H. Ry., which is operated under a lease, extending for 999 years, by the Maine Central Ry. Co., held at Sherbrooke, Que., Sept. 8, the following officers and directors were elected: President, S. N. Bond, Boston, Mass.; Vice-President, T. F. Baxter, Boston, Mass.; other directors, W. H. Goodwin, Boston, Mass.; H. C. Warren, New

Haven, Conn.; C. B. Jordan, Manchester, N.H.; Secretary-Treasurer, H. B. Brown.

London, Aylmer and North Shore Electric Ry.—A mortgage deed, dated April 29, 1903, securing an issue of \$1,250,000 of 20-year bonds, was filed with the Secretary of State, at Albany, N.Y. The mortgage is made to W. Warnock, banker, Aylmer, Ont., and the Guardian Trust Co. of New York city.

London, Ont., Street Ry.—Gross earnings:

	1902-3.	1901-2.	Increase or Decrease.
Dec.....	\$15,041.80	\$12,947.48	\$2,094.32+
Jan.....	12,132.54	10,117.60	2,014.94+
Feb.....	10,716.42	8,894.78	1,821.64+
Mar.....	11,533.68	10,233.21	1,300.47+
Apr.....	11,818.06	9,941.94	1,876.12+
May.....	13,144.76	12,233.68	911.08+
June.....	16,223.80	13,642.77	2,581.03+
July.....	18,317.23	16,337.43	1,979.80+
	\$108,928.29	\$94,348.89	\$14,579.40+

Gross earnings for Aug., \$19,094.16, against £16,102.08 for Aug., 1902.

Lindsay, Bobcaygeon and Pontypool Ry.—A general meeting of the shareholders was held in Toronto, Sept. 14, when the lease of the line from Burketon to Bobcaygeon, Ont., now under construction, to the C.P.R. was ratified. The lease is for a period of 99 years.

At the annual meeting held in Toronto, Sept. 14, W. T. C. Boyd was re-elected President, and T. Stewart, Lindsay, Ont., Secretary. Other directors were elected, but their names have not been made public.

Massawippi Valley Ry. Co.—At the annual meeting held at Rock Island, Que., Sept. 2, the following officers and directors were elected for the current year: President, Hon. W. White, Sherbrooke, Que.; Vice-President, J. G. Foster, Derby Line, Que.; Treasurer, Jas. H. Williams, Bellow's Falls, Que.; Secretary, S. Stevens, Rock Island, Que.; other directors, L. Tuttle, O. Edwards, J. W. Dunklee, A. Barnes, Boston, Mass.; C. H. Kathan, Rock Island, Que., and C. W. Cote, Sherbrooke, Que.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Articles of incorporation of the Minneapolis, St. Paul and Sault Ste. Marie Ry. Co., a formal consolidation of the roads embraced by the "Soo" system, have been filed with the Secretary of State for Minnesota. The consolidation which takes in the Minneapolis, St. Paul and Sault Ste. Marie Ry., Minneapolis and St. Croix Rd., Minneapolis and Pacific Rd., and Aberdeen, Bismarck and Northwestern Rd., is to have a capital stock of \$21,000,000, divided into 210,000 shares, of which 70,000 shares are preferred and 140,000 common. Stock in the consolidated company may be exchanged for that of the merged companies as follows: "Soo" stock, preferred and common, will be exchanged evenly for preferred and common of the consolidation. The stock of the other companies will be taken three shares for one share preferred and two shares common in the new company. The directors are W. D. Washburn, John Martin, Thomas Lowry, R. B. Langdon, H. F. Fletcher, C. H. Pettit, C. C. Harriman, J. C. Oswald, C. J. Martin, W. H. Eustis and F. Brown. The stock has been listed on the Toronto stock exchange.

Montreal Street Ry. Co.—At a special meeting of the shareholders held in Montreal, Sept. 10, it was decided to issue an additional \$1,000,000 of stock to shareholders of record of Sept. 30, in the proportion of one share of new to six of old stock. Hon. L. J. Forget, President, explained that the new stock was required for improvements and additions to the lines of the company, and for rolling stock in addition to the seventy-five big cars lately turned out, as well as for other purposes. Of the \$1,000,000, a sum of \$680,000 had already been expended. Only 90 shares were voted against the proposal. The new stock will be issued Oct. 14.

Earnings and expenses for Aug.:

	1903.	1902.	Increase or Decrease.
Passenger earnings.....	\$208,586.49	\$195,610.14	\$12,976.35+
Miscellaneous earnings.....	3,229.16	3,794.77	565.61-
Total earnings.....	211,815.65	199,404.91	12,410.74+
Operating expenses.....	109,138.86	100,086.21	9,052.65+
Net earnings.....	102,676.79	99,318.70	3,358.09+
Fixed charges.....	21,415.22	22,950.48	1,533.26-
Surplus.....	81,261.57	76,368.22	4,893.35+
Expenses % of car earnings.....	52.33	51.17	

From Oct. 1, 1902, to Aug. 30, 1903:

	1902-3.	1901-2.	Increase or Decrease.
Passenger earnings.....	\$1,967,444.91	\$1,813,987.15	\$153,457.76+
Miscellaneous earnings.....	32,544.87	29,254.31	3,290.56+
Total earnings.....	1,999,989.78	1,843,241.46	156,748.32+
Operating expenses.....	1,218,968.52	1,040,946.02	178,022.50+
Net earnings.....	781,021.26	802,295.44	21,270.18-
Fixed charges.....	210,778.52	187,178.94	23,599.58+
Surplus.....	570,242.74	615,116.50	44,873.76-
Expenses % of car earnings.....	61.96	57.38	

Interest on M. P. & I. Ry. Co.'s bonds owned by the Co. not included.

Montreal Park and Island Ry.—At the annual meeting held in Montreal Sept. 17, the following officers and directors were elected: President, Hon. L. J. Forget; Managing Director, F. L. Wanklyn; Secretary-Treasurer, W. G. Ross; other directors, K. W. Blackwell, H. M. Allan, D. McDonald and Col. F. C. Henshaw. The gross earnings of the company for the year were reported to be in excess of those of previous years, but the net earnings were not larger owing to the heavy expenditures for rolling stock and the increased expenses of operation.

Montreal Terminal Ry.—The business at the annual meeting held in Montreal, Sept. 16, was purely routine. The retiring directors were re-elected, the officers being: President, D. Murphy, Ottawa; Vice-President, H. M. Melville, Boston, Mass.; Managing Director, J. P. Mullarkey, Montreal.

New Brunswick Southern Ry.—Press reports are current to the effect that the N.B.S. Ry., better known as the Shore Line Ry. of Nova Scotia, has been purchased by the Washington County Ry. of the U.S. The object of the purchase, if it is made, would be to provide a route between Boston, Mass., and St. John, N.B., independent of the C.P.R., and the Boston and Maine Rd. The report that such a purchase was in contemplation has been made at various times for several years.

Ottawa and New York Ry.—At the annual meeting held in Ottawa, Sept. 15, the following were elected directors: G. B. Moffat, G. F. Peabody, H. S. Snow, S. Trask, C. J. Peabody, A. M. White, jr., A. Nichols, R. B. Moffat, New York; H. W. Gays, Ottawa. The election of officers for the year, we were informed, would take place on an early date.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net loss for July \$3,128.72 against net earnings of \$5,100.32 for July, 1902, making for eight months ended July 31, net earnings \$14,140.47 against \$56,221.70 for same period, 1901-02.

Quebec Bridge Co.—The annual meeting announced to be held Sept. 1, was adjourned to Oct. 15.

Quebec Central Ry. Co.—Gross earnings for July \$74,045.63; working expenses, \$49,411.49; net earnings, \$24,634.14 against \$74,027.81 gross and \$27,074.45 net for July, 1902. Gross earnings for seven months ended July 30, \$389,267.51; net earnings, \$108,794.67, against \$365,613.14 gross and \$107,645.91 net for same period, 1902.

Quebec and Lake Huron Ry.—The following officers and directors were elected at the annual meeting held in Quebec Sept. 9: President, Hon. A. Turgeon; Vice-President,

Sir A. Pelletier; Secretary, J. C. Langelier; other directors: Hon. H. G. Carroll, Hon. C. Langelier, Hon. A. C. P. Landry, R. Larue, of Quebec; and F. Campbell, of New York.

Quebec and Lake St. John Ry.—Earnings for July, \$52,668, against \$44,818 for July, 1902; making for seven months ended July 31, \$194,724, against \$187,543 for the same period 1902.

South Shore Ry.—The annual meeting was advertised to be held at Montreal, Sept. 15, but it was decided by the two parties who each claim control, to adjourn the meeting pending the decision of the Court of Appeal. The majority of the stock was purchased by a New York syndicate and R. J. Campbell, of New York city, sold these shares to the Quebec Southern Ry., but the other members of the syndicate say he was not authorized to make such a sale. The action was brought to restrain the issue of Quebec Southern stock and bonds in exchange for the shares, and to decide their ownership. (Sept. pg. 301.)

St. Thomas Street Ry.—The receipts for August were reported to be \$1,595.09. The City Treasurer estimates that the receipts for the year will nearly pay running expenses.

Temiscouata Ry.—Net earnings for July, \$3,219, making for the seven months ended July 31, \$8,580.

Temiskaming and Northern Ontario Ry.—The Commissioners opened tenders at Toronto Sept. 12, for the issue of bonds for \$2,750,000 guaranteed by the Ontario Government for the construction of 110 miles of line, at the rate of \$25,000 a mile. None of the tenders were accepted, the price offered being below what the Commissioners believe the securities are worth.

Toronto Railway Co.—Car earnings:

	1903.	1902.	Increase or Decrease
Jan.	\$161,938.22	\$137,135.61	\$24,803.01+
Feb.	146,530.17	127,081.00	18,558.16+
Mar.	130,913.85	141,681.27	18,232.63+
April	186,276.36	139,546.56	29,729.80+
May.	171,519.58	143,195.84	29,324.04+
June.	177,504.21	141,865.85	45,727.36+
July.	192,629.06	162,072.02	30,556.04+
Aug.	192,680.50	162,155.59	27,313.91+
	\$1,390,078.95	\$1,144,833.10	\$224,245.85+

White Pass and Yukon Ry.—Gross earnings for July, \$216,000; from Aug. 1 to 14, \$89,559.

C.P.R. Earnings, Expenses, Etc.
Gross earnings, working expenses, net profits, increases or decreases over 1902-03, from July 1, 1903:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$3,997,343.75	\$2,678,816.63	\$1,318,527.12	\$142,815.86+

Approximate earnings for August, \$3,994,000, against \$3,448,000 for August, 1902. Mileage increased to 7,743.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for July, \$265,239.28; net earnings, \$99,282, against \$267,216.84 gross and \$115,540.42 net for July, 1902. Approximate earnings for Aug., \$269,565, against \$263,443 for Aug., 1902.

MINERAL RANGE RY.—Approximate earnings for Aug., \$47,325, against \$44,970 for Aug., 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for July, \$589,731.76; net earnings, \$266,633.71, against \$592,278.76 gross and \$275,806.36 net for July, 1902. Approximate earnings for Aug., \$575,261, against \$529,025 for Aug., 1902.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1903.	1902.	1903.	1902.
July. . .	267,647.33	155,344.08	\$1,020,404.70	\$672,876.50
Aug. . .	263,339.45	130,723.83	1,271,529.81	473,064.85
	530,986.77	286,068.81	\$2,291,934.58	\$1,145,941.35

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase. Decrease
July.	\$3,192,608	\$2,589,422	\$603,186
Aug.	3,201,511	2,719,303	482,208
	\$6,394,119	\$5,308,725	\$1,085,394

The following figures are supplied from the London, Eng., office:

GRAND TRUNK RY. CO.
Revenue statement for July:

	1903.	1902.	Increase. Decrease.
Gross receipts.	£544,000	£437,600	£106,400
Working expenses	380,000	292,800	87,200
Net profit. . .	£164,000	£144,800	£19,200

GRAND TRUNK WESTERN RY. CO.
Revenue statement for July:

	1903.	1902.	Increase. Decrease.
Gross receipts.	£91,700	£74,700	£17,000
Working expenses	81,100	66,900	14,200
Net profit.	£10,600	£7,800	£2,800

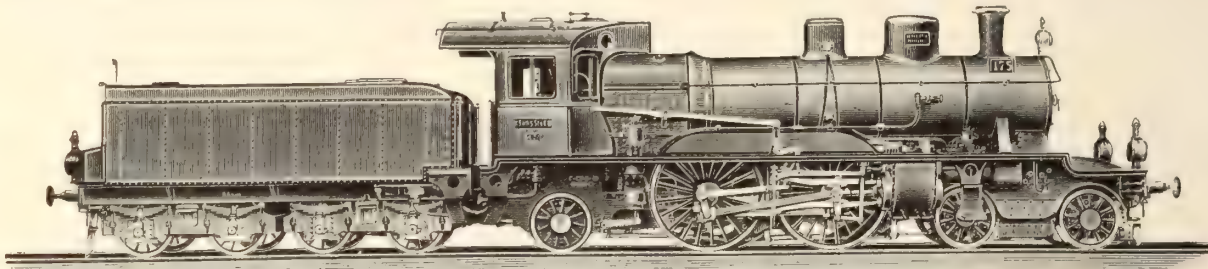
DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.
Revenue Statement for July:

	1903.	1902.	Increase. Decrease.
Gross receipts	£20,200	£19,600	£600
Working expenses	15,000	13,900	1,100
Net profit. . .	£5,200	£5,700	£500

TRAFFIC RECEIPTS OF THE SYSTEM.
Aggregate from July 1 to Aug. 31:

	1903.	1902.	In-crease.	De-crease.
Grand Trunk.	£1,090,637	£897,947	£192,690	.....
G. T. Western.	178,001	151,878	26,123	.....
D. G. H. & M.	45,223	41,009	4,214	.....
Total.	£1,313,861	£1,090,834	£223,027	.....

The American Locomotive Co.
The second annual report of this company, just issued, covers the year ended June 30. The gross earnings were \$33,105,724.84, an increase of \$6,707,331.32, or 25.4% over the 12½ months included in the first report. The expenses were \$28,052,314.90, an increase of \$4,761,098.00, or 20.4%. They included, in addition to all the ordinary charges, 20% written off from the book value of patterns and drawings, and a charge of \$484,369.64 representing positive additions to the company's property. The increase in the earnings is attributed to a larger output rather than to higher proportionate prices. The officers have conscientiously avoided any advance in the selling price of engines other

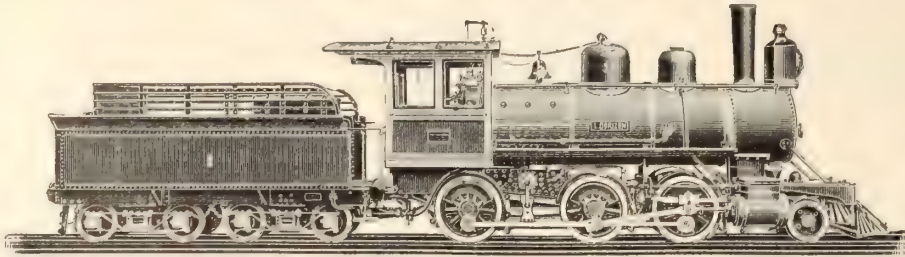


The Saxon Engine Works, late Rich. Hartmann, Limited

CHEMNITZ (Germany),

Carry on the construction of **LOCOMOTIVES** of every description.

Number
of
Workmen,
5,200.



Capital,
\$3,000,000.

than such as became absolutely necessary in order to meet the higher cost of labor and of raw material. It is the Company's intention to make a prominent feature of the general overhauling and extensive repairing of locomotives and the supplying of new parts; hence it is gratifying to be able to report the substantial growth of this department during the year. The increase in expense has not been in proportion to that in earnings, inasmuch as the economies introduced during the past two years are now beginning to bear fruit; these, however, do not show to their full extent, as in pursuance of the company's liberal policy in the matter of the upkeep and betterment of its plants, the charges to productive cost for maintenance, renewals and replacements were double those of the preceding year. The result of the operations of the company's eight plants is as follows:

	1902-3	1901-2
Gross earnings	\$33,105,724 84	\$26,398,393 52
Manufacturing, maintenance and administrative expenses	28,052,314 90	23,291,216 90
Net earnings	\$5,053,409 94	\$3,107,176 62
Interest on bonds of constituent companies, bills payable, etc.	248,156 79	105,864 58
Profit available for dividend	\$4,805,253 15	\$3,001,312 04
Dividend on preferred stock, at 7%	1,750,000 00	1,750,000 00
Surplus	\$3,055,253 15	\$1,251,312 04

In order to take advantage of the exceptional and widespread demands for new locomotives during the past two years, extensive purchases of land have been made, capacious new shops of the most modern design have been erected and equipped with the latest and most efficient machinery and tools. Old shops have been remodeled and re-equipped, with the result that the manufacturing capacity of the company has increased fully fifty per cent. over that of the constituent plants at the time of their consolidation into the American Locomotive Company. It is expected that the improvements authorized by the board of Directors will be completed during the fiscal year now opening. During the past fiscal year the sum of \$1,627,301.84 has been expended for additions to the company's property, as indicated above, which, together with the sum of \$1,629,227.90 announced in the report of the previous fiscal year, makes an aggregate expenditure of \$3,256,529.74 thus far, all of which will be paid for out of the current income.

Out of the resulting net earnings the required annual dividend of 7% on the preferred stock has been paid, amounting to \$1,750,000 and leaving a surplus of \$3,055,253.15 to be carried to the credit of "Profit and Loss" account.

The London and Port Stanley Ry.

In a recent issue of the London, Ont., Advertiser some interesting particulars are given relative to the London and Port Stanley Ry. Co., from which we extract the following:

Were it not for the fact that the London and Port Stanley Ry. insures in a measure cheap freight rates via lake connections to London, the road would certainly be an elephant on the city's hands, even when rented steadily, and earning what is generally accepted as a fair annual rental.

The line was built back in the 50's, and the men who projected it had in view the making of a sort of lake port of the city of London. At the time the reciprocity treaty with the United States had worked up a big lake business, and day and night teams walked the plank road from Port Stanley to London, and vice versa, with heavy wagons loaded with freight. London was growing rapidly. Port

Stanley was a port of importance, and it appeared to all that it was time London should have better connection with the lake. And the London and Port Stanley Ry. was built.

The city operated the road for some years with anything but marked success, until a collision occurred between the two locomotives owned by the city, and both were wrecked. The collision occurred just south of the first crossing from the bridge over the Thames river in this city, and for years afterwards the old smokestacks laid in the ditch marking the spot. After this collision in 1873 the line was leased to the G.T.R., which operated it until 1893. The G.T.R. gave it up at the expiration of their term, because they had built the Glencoe-Kingscourt loop line, and claimed it was no longer necessary to their interests. After some time a proposal was made by a Cleveland, Ohio, man, who offered to lease the line for \$28,000 a year, and put up \$20,000 as a security. His backers failed him and nothing was done, the city forfeiting the \$20,000. Then the Michigan Central Rd. operated the line, but later on it was leased to the Lake Erie and Detroit River Ry., by which company it is still operated. The L.E. and D.R. Ry. is owned by the Pere Marquette Rd. and operated as a part of its system.

It is understood that the G.T.R. endeavored to purchase the line in 1877 for \$500,000, but the city declined to entertain the offer. The cost of the line to the city is \$44,000 a year, against which the receipts amount to \$15,000, leaving a net amount of \$29,000 a year to be provided out of the taxes. The road cost in the first place, for land, land damages, grading, masonry, bridges, road-bed, etc., \$966,907.62. Since the construction of the road much money has been spent on it, however, the city in 1896 voting \$85,000 for repairs and improvements.

From Colborne st., where the L. E. and D.R. Ry. freight house stands, to the depot at Port Stanley, is 23.66 miles; there are 2.47 miles of siding, two engine houses and four bridges.

For some years the L.E. and D.R. Ry. tried to have the present lease extended, but for various reasons the city saw fit to put the matter off. The Pere Marquette Rd. are, it is understood, anxious to have their lease extended, and a proposition to the city in the near future may be expected.

Within the last year the road has increased in value through new factories locating along the line, and it is said that more factories are to be built just south of the river, which will increase its earning power for the lessees.

Thus, though the road has cost the people a good deal of money in the past, it would appear that it is rapidly approaching a condition where it will be self-sustaining, and though it may not earn much money for the city in rental, it nevertheless will continue to pull grist to London's mill by maintaining a low freight rate for London shippers to the lake, thus yielding an immense influence upon the other railroads entering London.

Railway Equipment Notes.

The C.P.R. is experimenting with an automatic firebox device on one of its locomotives.

The G.T.R. has received the following equipment between Aug. 18 and Sept. 14: 135 box cars, 300 steel coal cars, 12 cinder cars and 477 wooden coal cars.

The Hamilton, Grimsby and Beamsville Electric Ry. has added a new car to its equipment. The car is larger than any hitherto in service on the line, and is fitted with ball bearings to the axles.

The Government of New South Wales, Australia, is asking for tenders for the construction of 100 locomotives at an estimated

cost of \$1,250,000, to be delivered in the next four or five years.

The five dining cars recently ordered by the C.P.R. at its Hochelaga shops will be 72 ft. in length, and will have accommodation for 36 at the tables, an increase of six in comparison with the dining cars last built.

The C.P.R. since Aug. 12 has placed orders at its Hochelaga shops for the following equipment: 15 sleeping cars, five dining cars, 25 first-class passenger cars, six suburban cars and 25 tourist cars.

The Record of Recent Construction, no. 44, issued by the Baldwin Locomotive Works, Philadelphia, Pa., contains, among other illustrations, two locomotives with cars for inspection and observation purposes, and a double-end locomotive to work on a 4% grade with curves up to 30 degrees.

The locomotive recently constructed by the Baldwin Locomotive Works for the Canadian Copper Co., Sudbury, Ont., the following parts were made of nickel steel: Frames and frame rails, driving axles, piston rods, guides, guide bearer knees, boiler plates, boiler tubes, main driving-wheel centre, eccentric strap, reverse shaft, lifting links, driving tires, crank pins, tender axles, connecting rods, guide bearer, driving spring links, firebox plates, crossheads, rockshaft, equalizing beams, crossies, drawhead socket, driving boxes and cellars.

The equipment of the C.P.R. on June 30 was stated in the annual report to consist of 840 locomotives, 725 first and second-class passenger cars, baggage cars and colonist sleeping cars, 139 first-class sleeping and dining cars, 45 parlor, official and paymaster's cars, 26,270 freight and cattle cars (all kinds), 492 conductors' vans, 984 board, tool and auxiliary cars and steam shovels.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. Co. in its annual statement of accounts shows that during the year ended June 30 it added to its equipment 300 box cars, 200 flat cars, 50 refrigerator cars, one dining car, seven 1st-class passenger coaches, four sleeping cars, four tourist cars, five baggage cars, two switching engines, four passenger locomotives, three compound consolidated locomotives, three compound mogul locomotives, one wrecking train, one steam shovel and one ballast unloader, at a total cost of \$827,102.67.

The Minneapolis, St. Paul and Sault Ste. Marie Ry. Co. reported that on June 30 its equipment consisted of 116 locomotives, 26 first-class passenger coaches, 12 second-class passenger coaches, six combination cars, 16 sleeping cars, nine tourist sleeping cars, six dining cars, one buffet car, 28 baggage, mail and express cars, two official cars, 6,802 box cars, 1,084 flat cars, 68 cabooses, 143 ore cars, 98 stock cars, 122 refrigerator cars, 20 charcoal cars, 20 logging cars, eight furniture cars and 15 tool cars, etc.

The annual report of the C.P.R. shows that from the new capital stock issued there had been expended on additional equipment the following amounts: 127 locomotives, \$2,372,205.04; 32 sleeping, parlor, dining, official and pay cars, \$464,128.68; 48 passenger, tourist and colonist coaches, \$432,636.53; 14 baggage, mail and express cars, \$62,600.91; 135 conductors' vans, \$113,970.41; 4,110 box, stock, refrigerator and furniture cars, \$3,717,542.89; 1,680 flat, coal and ore cars, \$1,282,716.92; 42 miscellaneous cars and snow ploughs, \$269,895.62; total \$8,715,697.

The C.P.R. has received the following equipment between Aug. 12 and Sept. 8: six passenger locomotives from Glasgow, Scotland; two passenger and five freight locomotives from the American Locomotive Co.'s Schenectady works; five 1st-class passenger cars from its Hochelaga shops; two 1st-class

passenger cars, nine refrigerator cars for passenger train service, 12 refrigerator cars for freight train service, and 17 stock cars from Rhodes, Curry & Co., Amherst, N.S.; 183 stock cars from its Perth, Ont., shops; 20 flat cars from the Algoma Central and Hudson's Bay Ry. Co.'s car shops, Sault Ste. Marie, Ont.; six vans from its Farnham, Que., shops.

A Freight Car Locating System.

There has recently been installed in the office of the Car Service Agent of the C.P.R. at Winnipeg, a system of keeping track of the cars under his control. The system is known as the graphic system, and requires for its operation a cabinet some 6 ft. in height. This cabinet is divided into compartments in which are placed tablets representing each car under the supervision of the office. The cars at present represented are stock cars, palace horse cars, furniture cars, refrigerator cars and ventilator cars. The case is set off to represent the whole of the road under the care of the Winnipeg car service agent, and

is subdivided into the divisions of superintendents. The territory covered extends from Fort William, Ont., to Laggan and Kootenay Landing, B.C. There are eight superintendents in the line covered. For each car there is a pallet into which there is inserted a card on which the movement of the car is entered. The number of the car is duplicated on the pallet, and the color of the pallet shows the class of car that is represented. By this system it can be seen at a glance just how the cars are distributed over the line, where they are located, and the condition that they are in. An empty movement is indicated by blue pencil marks, and a loaded movement by an entry in black pencil. As the car moves along the rails so do the pallets in the case. The system is regarded as a most perfect one. A large cabinet is in use in Montreal by which the whole equipment of the road is located by the officials of the car department at headquarters.

The Dominion Iron and Steel Co. is constructing a new rod and rail mill at its plant at Sydney, N.S.

The C.P.R. has been Discovered.

The following appeared in a recent issue of the Railway and Engineering Review:

"Canada.—It is stated that the Canadian Pacific will discontinue work for the time being on its Western division, owing to the fact that it has been found almost impossible to obtain material. During the last two years work on the Canadian Pacific has been almost continuous. Its object has been to become one of the great trunk lines of the continent."

This last sentence will certainly strike C.P.R. officials as very late news, as they as well as all Canadians had been under the impression that the C.P.R. had been one of the great trunk lines of the continent, and in fact was the only trunk line extending right across the continent from the Atlantic to the Pacific, operated and owned by one company.

The Hampton and St. Martin's Ry. has been re-opened for some distance from Hampton, N.B., and will be operated for its entire length, early in Oct.

Pintsch System Car and Buoy Lighting.

This Company controls in the United States and Canada the celebrated Pintsch System of Car and Buoy Lighting. It is economical, safe, efficient, and approved by the railway managers and Lighthouse Board of the United States, and has received the highest awards for excellence at the World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta and Buffalo. 120,000 cars, 5,000 Locomotives and 1,700 Buoys are equipped with this light. 170 Railroads in the United States, Canada and Mexico have adopted this system of lighting, applied on over 20,000 cars.

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E. N. Bender, General Purchasing Agent, C.P.R., at Montreal, born at Quebec, Oct. 3, 1858.

T. C. Burgess, Commercial Agent G.T.R., at Minneapolis, Minn., born at New York City, Oct. 2, 1853.

James Conmee, M.L.A., railway contractor, etc., Port Arthur, Ont., born at Sydenham, Ont., Oct. 13, 1848.

C. Cooper, Assistant Treasurer, Secretary and Auditor, Halifax and Yarmouth Ry., at Yarmouth, N.S., born in New Jersey, Oct. 18, 1869.

G. L. Courtney, Traffic Manager, Esquimalt and Nanaimo Ry. at Victoria, B.C., born at Chatham, Ont., Oct. 7, 1868.

F. S. Darling, Division Engineer, C.P.R., at Montreal, born at Burlville, R.I., Oct. 8, 1863.

J. Earls, Secretary and Treasurer Canadian Freight Association at Toronto, Ont., born in Ireland, Oct. 30, 1838.

A. H. Harris, ex-General Traffic Manager Quebec Southern Ry., now C.P.R. freight service, at Montreal, Que., born in Devonshire, Eng., Oct. 15, 1855.

H. Paton, Secretary-Treasurer Shedden Forwarding Co., director Bell Telephone Co., Montreal, born at Johnstown, Renfrew, Scotland, Oct. 5, 1852.

D. Pottinger, General Manager Canadian Government Rys. at Moncton, N.B., born at Pictou, N.S., Oct. 7, 1843.

J. E. Price, General Superintendent I.C.R. at Moncton, N.B., born at Petitcodiac, N.B., Oct. 18, 1854.

N. L. Rand, Master Mechanic I.C.R. at Moncton, N.B., born at Shediac, N.B., Oct. 28, 1843.

G. B. Reeve, ex-Second Vice-President and General Manager G.T.R., La Mirada, Cal., born in Surrey, Eng., Oct. 23, 1840.

E. W. Rathbun, President Bay of Quinte Ry., Deseronto, Ont., born at Auburn, N.Y., Oct. 5, 1842.

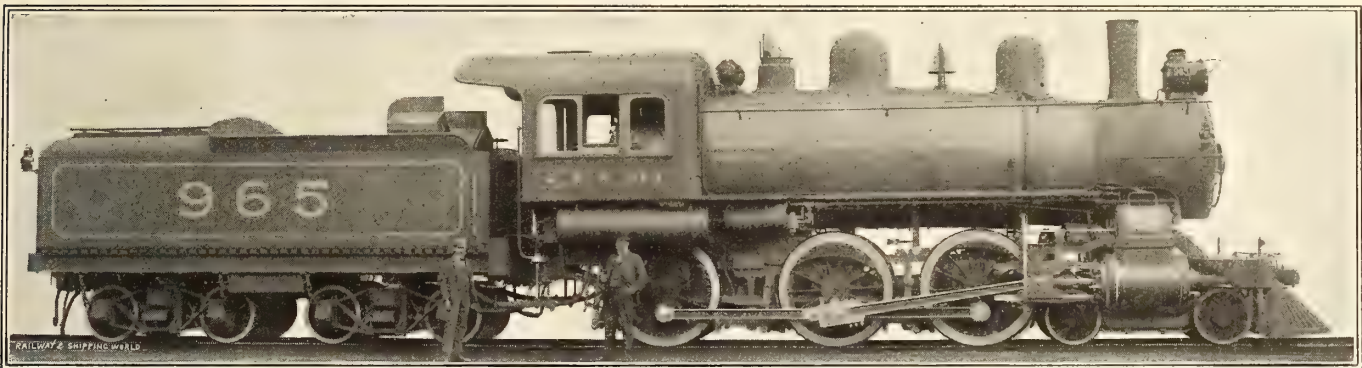
Sir Thomas G. Shaughnessy, President C.P.R. at Montreal, born at Milwaukee, Wis., Oct. 6, 1853.

C. W. Spencer, Vice-President and General Manager Ottawa, Northern and Western Ry., Pontiac Pacific Ry., Hull Electric Ry., and Kingston and Pembroke Ry., and General Superintendent of Transportation Eastern Lines C.P.R. at Montreal, born at Kemptonville, Ont., Oct. 31, 1857.

W. S. Taylor, Treasurer C.P.R. at Montreal, born at Dornoch, Sutherlandshire, Scotland, Oct. 18, 1839.

£100,000, of which £50,207 was applied for by private subscription, and on which five shillings a share, or £12,551 15s., has been called up. Of the amount called up £7,500 had been deposited with the Bank of Montreal in London to pay surveys, etc. The company also undertook to pay £50,000 in cash or shares for the charter of the A. Q. and W. Ry. A preliminary survey of the route had been made by H. Sullivan, and further surveys will be gone on with this year. It is not likely that any construction will be done this year. The line is projected from Gaspé to near Causapscal on the I.C.R., 170 miles, and thence to Edmonton, N.B., 90 miles. The distance from Paspebiac, the terminus of the Atlantic and Lake Superior Ry., to Gaspé is about 80 miles. C. B. K. Carpenter, of Gaspé, Que., who represents the company in Canada, has an office in Montreal. (Aug., pg. 267.)

Bay of Quinte Ry.—Arbitrators have been appointed to assess the value of some properties at Tweed, Ont., required by the company for the extension of its line. At the meeting of the Railway Committee of the Privy Council, Sept. 22, J. James objected to the location of the line and a station on his mining lots in Elzevir tp. The application was adjourned for a week, to enable the applicant to notify the company of his intention to operate the mine, whereupon the company will construct a subway and remove the



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W. P. Fitzsimons, Manager Lackawanna-Grand Trunk Line at Buffalo, N.Y., born at Detroit, Mich., Oct. 27, 1868.

C. F. Gildersleeve, General Manager Richelieu & Ontario Navigation Co. at Montreal, born at Kingston, Ont., Oct. 17, 1833.

B. W. Greer, General Freight Agent, C.P.R. at Vancouver, B.C., born at Aldboro, Ont., Oct. 4, 1867.

W. M. Kirkpatrick, Assistant General Freight Agent Pacific Division C.P.R. at Vancouver, B.C., born at Kingston, Ont., Oct. 8, 1874.

J. F. Lee, ex-Traffic Manager White Pass & Yukon Route at Seattle, Wash., born at London, Eng., Oct. 23, 1851.

Jas. W. Leonard, Assistant General Manager C.P.R. Western lines at Winnipeg, born at Epsom, Ont., Oct., 1858.

A. Leslie, General Auditor and Accountant Lake Erie & Detroit River division, Pere Marquette System, at Walkerville, Ont., born at Toronto, Oct. 3, 1864.

R. Marpole, General Superintendent C.P.R. Pacific Division at Vancouver, born in Montgomeryshire, Wales, Oct. 9, 1850.

I. G. Ogden, Third Vice-President C.P.R. at Montreal, born at New York City, Oct. 10, 1844.

G. Olds, ex-General Traffic Manager C.P.R., born at Stapleton, Gloucestershire, Eng., Oct. 29, 1832.

L. H. Wheaton, ex-Chief Engineer and General Superintendent Halifax and Yarmouth Ry., born at Sackville, N.B., Oct. 5, 1866.

E. A. Williams, Superintendent Rolling Stock C.P.R. at Montreal, born at Wiscasset, Me., Oct. 4, 1848.

RAILWAY DEVELOPMENT.**Projected Lines, Surveys, Constructions, Betterments, Etc.**

Algoma Central and Hudson Bay Ry.—All operations in connection with the railway ceased on Sept. 17, in connection with the closing down of the various companies controlled by the Consolidated Lake Superior Co. It was announced that only one train a week would be run on the line from Sault Ste. Marie, Ont., to the end of the track near Mekatina, 64 miles. The company's car shops have also been closed. (Aug., pg. 267.)

Atlantic, Quebec and Western Ry.—The new Canadian Co. (Ltd.), a British corporation, which has been granted a Dominion charter at the current session of Parliament, holds the Quebec charter of the A. Q. and W. Ry. Co., and has an application for a Dominion charter before the current session of Parliament. The N. C. Co. has a capital of

station, allowing Mr. James to operate an aerial tramway. (Aug., pg. 267.)

Beersville Coal and Ry. Co.—The Lieutenant Governor of New Brunswick, by proclamation dated Sept. 8, declared the act passed at the last session of the Legislature, incorporating the B. C. and Ry. Co., to be in force. The provisional directors named in the act are: C. G. Polleys, M. F. Keith, F. C. Robinson, B. N. Jones, R. I. Irving and H. H. Parlee, and the offices of the company are at Beersville, N.B. It is authorized to issue \$20,000 of common stock, and bonds to the extent of \$5,000 a mile of its railway. The line to be constructed will extend from a point on the I.C.R. near Adamsville, to Brown's Landing, and branches therefrom may be constructed. The subsidies passed at the recent session provided for the payment of \$2,500 a mile in respect of this railway. A contract for the construction of about seven miles of line, from the mines of the Imperial Coal Co. at Beersville to Adamsville, has been let to J. C. Gilmore and W. Brown. The construction is reported to be easy, and the contractors expect to have the line ready by Jan. 1. (June, pg. 213.)

Bellingham Bay and British Columbia Ry.—D. O. Mills, President of the B. B. and B. C. Ry., has received details of a survey showing a new route through the Cascade

mountains, south of the International Boundary. The company's surveying party, which went through the pass, is engaged locating a line from Whatcom to Spokane, Wash.

British Columbia Electric Ry.—A preliminary survey has been made with a view of extending the company's line from New Westminster to Ladner. After crossing the Fraser river by the new bridge, the projected route would be along the river bank to Ladner.

The company is considering tenders for the erection of a new reduction station at the corner of Westminster avenue and Barnard st., Vancouver, at a cost of about \$40,000. (Jan., pg. 19.)

Brockville, Westport and Sault Ste. Marie Ry.—The Senate Railway Committee decided to hold over for further consideration the application of the Reorganization Syndicate of New York, which purchased the B. W. and S. S. M. Ry. at the mortgage sale, for confirmation of its title and powers to extend the line. The bill was opposed by the judgment creditors, and the committee is of opinion that the conflicting interests should be har-

monized, hence the adjournment. (Aug., pg. 267.)

Canada Atlantic Ry.—The work of bridge improvement, ballasting, etc., on the western portion of the line commenced in the spring has been completed, and attention will now be paid, G. Mountain, Chief Engineer, recently stated, to the work on the new subway at Elgin st., Ottawa.

The position of matters in connection with the agreement entered into in 1895 for the construction, within three years, of a central station in Ottawa remains as it was. The city council has had an interview with the Dominion Government, which leased the site of the proposed station to J. R. Booth. There is a dispute between the Government and the Sparks estate in respect to a portion of this land, and Mr. Booth's contention is that he cannot build the station until the appeal, which is pending before the courts, regarding the title to the land is disposed of.

In connection with the line of passenger steamers which the company will run from Chicago, Ill., and Duluth, Minn., to Depot Harbor, Ont., in 1904, it proposes to con-

struct one or more hotels on the Georgian bay, and in the Algonquin Park district. (Sept., pg. 305.)

Canada Central Ry.—Press reports state that among the railway subsidies to be asked for at the current session of the Dominion Parliament will be one for the construction of the C.C. Ry. from Scotia Jct. to Sudbury, via French river. (Aug., pg. 267.)

Cape Breton Coal, Iron and Ry. Co.—This company, which was incorporated by the Nova Scotia Legislature in 1895, was authorized at the recent session of the Legislature to increase its capital to \$4,000,000, and with the approval of its shareholders to \$5,000,000. The company is opening up its coal areas, has built a shipping pier, and proposes to construct docks at Sydney, and lines of railway to connect its mines with the points of shipment. (Sept., pg. 305.)

Cape Breton Ry.—All the work on the C.B. Ry. from Point Tupper to St. Peter's, N.S., 32 miles, has been completed, the line approved by the Provincial Engineer, and passenger traffic was opened Sept. 7.

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No decision has been reached as to the starting of work on the projected extension of the line from St. Peter's to Louisburg, or the branch to Arichat. (Aug., pg. 267.)

Chateauguay and Northern Ry.—Notice has been served on the municipality of Longue Point, Que., to the effect that the company is prepared to proceed with the construction of an electric railway on the main road of the municipality, and to connect the same with the main line of the C. and N. Ry. and with the lines of the Montreal Terminal Ry. The line proposed to be constructed covers the district which the Montreal Park and Island Ry. Co. desired to enter, but which it was enjoined by the courts from entering.

By an arrangement with the C.P.R. the C. and N. trains will be switched over the former's lines from Hochelaga to the wharves, so that for some time it will not be necessary to construct an independent line to the water front.

Rapid progress has been made with the bridges over the river at Bout de l'Isle, and it is expected that the line will be opened for freight traffic early in Oct. The steel work on the western section of the bridge is nearly completed. The grading between Charlemagne, on the mainland, and Joliette is well forward and was expected to be completed by the end of Sept. Tracklaying has been going on for some time, and four miles, between L'Epiphanie and L'Assomption, was laid early in Sept. The rails, ties, etc., are all on the spot ready for laying. (Sept., pg. 305.)

The Colchester Coal and Ry. Co. has been incorporated under the Nova Scotia Companies' act with a capital of \$1,000,000, the promoters being J. Fleming, Halifax, and J. Hayes, M.D., Parrsboro, N.S., who have associated with them a number of prominent men, including officials of the Dominion Atlantic Ry. The company owns considerable coal areas at Debert, and has completed surveys for four miles of railway from the mines to Debert station on the I.C.R. There are no engineering difficulties in the way of construction; the grade will not exceed 1%, the total rise from the Debert station to the mine being only 150 ft., or 1 ft. in 140 ft. R. Archibald, C.E., made the surveys and is in charge of operations at the mine. (July, pg. 234.)

Detroit River Bridge.—G. S. Morrison, the special engineer employed by the G.T.R. and Michigan Central Rd. to make some special surveys and to report upon the question of bridging the Detroit river, died recently, and A. P. Boller, of Boller & Hodge, consulting engineers, New York, has been engaged to take up and complete his work. (Aug., pg. 267.)

Embro Radial Ry. (Electric).—A meeting was recently held at Embro, Ont., in support of the projected electric railway. There has been \$50,000 of the capital raised privately, and it is proposed to ask the municipalities, through which the line will pass, to subscribe towards the additional capital required. (Sept., pg. 305.)

Fraser River Bridge.—All the frame work for the short spans on the south side was reported to be in place Sept. 15, and the work of riveting was in progress. The steel work for the 380 ft. span is being got ready for placing. Of the remaining portion of the substructure no. 3 pier is nearing completion, and no. 2 pier is progressing. (Sept., pg. 305.)

Gaspé and Western Ry.—The application for the incorporation of a company with this title to construct a railway through Gaspé county, Que., at the current session of the Dominion Parliament has been rejected by the Senate Railway Committee. (June, pg. 213.)

Grand Valley Ry. (Electric).—Tracklaying on the extension of this line from Paris to Galt, Ont., 20 miles, was commenced Sept. 14. (Aug., pg. 267.)

Great Northern Ry. of Canada.—The workshops of the G.N.Ry. on Louise embankment, Quebec, were burned out recently, the loss being estimated at about \$70,000. The machine shop was totally destroyed, and a number of cars, which were undergoing repairs, were burned. The site has been cleared, and the directors have decided to rebuild the shops on a larger scale. The buildings, however, will not be gone on with this year. (July, pg. 235.)

Great Northern Ry. (U.S.)—An agent of the G.N.R. is negotiating for the purchase of land near the Vancouver, B.C., city hall, in order to build a large six story hotel.

In connection with the building of railways in B.C., there are a great many rumors in circulation, most of which have a political significance, seeing that a provincial election is in progress. The Premier recently had an interview with J. D. Farrell, who represents President J. J. Hill at Seattle, Wash., and on his return to Vancouver, B.C., said in an interview: "The Great Northern has much in store for British Columbia, and will afford transportation without being bonused. Mr. Hill will proceed under the charters of the Vancouver, Westminster and Yukon Ry., the Kootenay Central Ry., and the Kootenay, Cariboo and Pacific Ry., to give two connections with the Grand Trunk Pacific Ry. in the north, one from Vancouver and the other from southeast Kootenay. He also said that the line from Vancouver through Cariboo will have a branch through the Yellow Head Pass to Edmonton, so that the Great Northern may tap the great wheat fields of the Northwest." Senator Templeman, in an interview at Ottawa, stated: "While B.C. is the largest gold-producing province in the Dominion, it is at the same time prolific of gold bricks, in the shape of railway projects, on the eve of an election. The fertility of resource possessed by the average Provincial Premier when it becomes necessary for him to provide one of these gold bricks is unfailing. A gold brick of this kind has been handed out at every general election, and at not a few by-elections, during the last ten years. Two or three elections were fought in Victoria on the British Pacific Ry. project, a railway that was to run from Bute Inlet to Yellow Head Pass, and which was ultimately, it was claimed, to make Victoria the terminus of another transcontinental line. At the last by-election in Victoria, the branch of the Canadian Northern over practically the same route was the great drawing card. In the cases mentioned, the companies were already granted subsidies from the Province, which gave the color of genuineness to the schemes. But now the Great Northern has no contract of any kind with the Province, and will not make one. Mr. Hill publicly stated at Grand Forks, B.C., that he would build the road to the coast without a subsidy. All he wanted was a good grade. It is quite true Mr. McBride has not stated that he has made a contract with Mr. Hill, or with anyone representing Mr. Hill."

See also Vancouver, Westminster, Yukon and Northern Ry.

Guelph Junction Ry.—P. A. Peterson, consulting engineer, Montreal, and formerly chief engineer C.P.R., paid a visit to Goderich, Ont., Sept. 15, with a view of looking over the suggested route for the entrance of the projected extension of the G.J.Ry. to Goderich. W. Bell, President, and H. A. Macdonald, Secretary of the G.J.Ry., met Mr. Peterson and discussed the matter with him. The Secretary stated that as a result of the information now available representatives of the company will have an interview with the C.P.R. officials with a view to arranging for the construction of the line.

Two routes have been looked over between Guelph and Goderich, but no decision has been reached as to which will be followed.

The northern route is by Elmira, Listowel, Brussels and Blyth. The other route would take in St. Jacob's, Milverton and Clinton. Goderich people seem to generally favor the northern route, as it would give them connection with a section of country from which they are at present virtually shut out. An entrance into Goderich and to the wharf, Mr. Peterson says, can be secured with a grade of ½%. (July, pg. 235.)

Guelph Radial Ry. (Electric).—In connection with the proposal of the city to take over the existing street railway lines and to extend the same, a public meeting was recently held at which the following information was given relative to other street railway lines in the province: The Berlin and Preston Ry. last year carried 355,000 passengers, the Galt and Hespeler line carried 277,000 passengers, in Guelph last year the number of passengers was 352,000. In 1902 the Woodstock-Ingersoll line paid the shareholders 6% of a semi-annual dividend, which is very satisfactory in view of the fact that, unlike Guelph, the road there has to compete with two steam lines. The population of Woodstock and Ingersoll combined is 13,300, while Guelph, Elora and Fergus have a population of over 14,000, and the distance between the places is about the same. The Woodstock-Ingersoll line carries no freight, while the Guelph charter allows the carrying of freight. (July, pg. 235.)

Halifax and South-Western Ry.—D. D. Mann recently went over the route of the H. and S.W.Ry. from Halifax to Barrington Passage, N.S. He says that there are 1,800 men employed in grading between Halifax and Liverpool. This work is expected to be completed this winter, and the whole line by June, 1904. A press report states that the Atlantic Contracting Co. has let the following subcontracts on the line: McKay, Wells & Morrison, 20 miles; Lindsay & Farrell, 5½ miles; H. Sorette, 15 miles; Dini & Cozzolino, 15 miles. There has been landed at Bridgewater rails, etc., for 44 miles of track, and other steamers with rails, etc., are on the way. (Sept., pg. 305.)

Hamilton, Caledonia and Lake Erie Ry. (Electric).—A site for the power dam has been secured at Indiana on the Grand river, and plans are being prepared for the work. The power canal will be 1½ miles in length. (Sept., pg. 305.)

Hamilton, Grimsby and Beamsville Electric Ry.—The company had some difficulty with property owners in connection with the location of poles for its Vineland extension, but these were adjusted early in Sept., and it was expected that the extension would be in operation by the end of the month. (Sept., pg. 305.)

Hamilton Inlet to Lake Superior.—Press reports are again current to the effect that J. J. Hill, of the Great Northern Ry., U.S., has in contemplation the construction of a line of railway from a point on Lake Superior, in Ontario, to Hamilton Inlet, on the Atlantic coast of Labrador. An exploration party, headed by Col. Glazier, who has undertaken preliminary surveys for railways in other countries, has been formed to start inland from Hamilton Inlet, but up to Sept. 15 had not been able to secure a suitable vessel for the trip to Rigolet.

Hamilton to Port Stanley.—R. S. Portheim, who is connected with an Edinburgh (Scotland) firm of railway promoters and contractors, has been looking over the ground with a view of obtaining franchises for the construction of an electric railway from Hamilton to Port Stanley, Ont., running through Brantford, Woodstock, London and St. Thomas, about 100 miles.

Hampton and St. Martin's Ry.—The ballasting and other work on this line from Hampton, on the I.C.R., to St. Martin's,

N.B., 29 miles, has been practically completed. A train service was put in operation on a portion of the line from Hampton early in Sept., and it was expected that it would be extended over the whole line by Oct. 1. (Aug., pg. 268.)

Intercolonial Ry.—Tenders are being considered for the erection of a combined passenger and freight station, a one-stall engineshed, a shelter and a section tool house on the recently completed branch from Riviere Ouelle, Que., to the St. Lawrence river.

Another span of the new bridge over the Miramichi river has been completed, and preparations are going on for putting up the other two spans required to complete the bridge. There are in all 12 spans of 240 ft. each in the bridges which are being replaced with heavier superstructures at this point. These spans are to be removed to Prince Edward Island and re-erected over the Hillsboro river on the Murray Harbor branch of the P.E.I.R., now under construction. The contract for the removal of these spans and their re-erection has been let to H. McDonald, North Sydney, N.S. The contract price is \$85,000.

The new roundhouse at St. John, N.B., is expected to be completed early in Oct.

The work of extending and rebuilding the foundation of the Courtenay bay extension of the I.C.R., at St. John, N.B., is being proceeded with at a satisfactory rate. The extension will consist of 8 ft. to the present work and its rebuilding with a batter of 3½ ins. to the foot instead of being plumb as was before. After the work is brought up to high water mark the contractor will tear down and build in under the track about 9 ft. on the old property. Only 1,400 ft. of the whole length of structure will be improved, and this extent will be in three different places so as to cover the portions most in need of repair. This means about one-third of the whole affair. The logs will project out where necessary for the addition of further improvements. The wharf for a distance of 250 ft. has already been built up to an average height of 8 ft. (Sept., pg. 306.)

James Bay Ry.—W. H. Moore, representing Mackenzie, Mann & Co., had a conference with the board of control of the Toronto city council, Aug. 28, with a view to obtaining the co-operation of the city in securing from the Dominion Government subsidies towards the construction of the line. The company, Mr. Moore explained, proposed to construct 450 miles of line from Toronto to make connection with the Grand Trunk Pacific Ry., so as to be ready to exchange traffic with that line as soon as it was in operation. The

THE GRAND TRUNK RAILWAY COMPANY OF CANADA

NOTICE is hereby given that the ordinary general half-yearly meeting of the Grand Trunk Railway Company of Canada will be held at the City Terminus Hotel, Cannon Street, London, E.C., on Friday, the 9th day of October, 1903, at 12.00 o'clock noon, precisely, for the purpose of receiving a report from the directors, and for the transaction of other business of the Company.

Notice is also given that the transfer books of the company will be closed from Monday, the 14th day of September, to the day of Meeting, both days inclusive.

By order,

C. RIVERS WILSON, President.

H. H. NORMAN, Secretary.

Dashwood House,
9 New Broad Street, London, E.C.,
14th September, 1903.

Canadian Northern Railway

THE NEW CANADIAN HIGHWAY FROM PORT ARTHUR, THE HEAD OF LAKE SUPERIOR, TO

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WINNIPEG

PORTAGE LA PRAIRIE

BRANDON

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EMERSON

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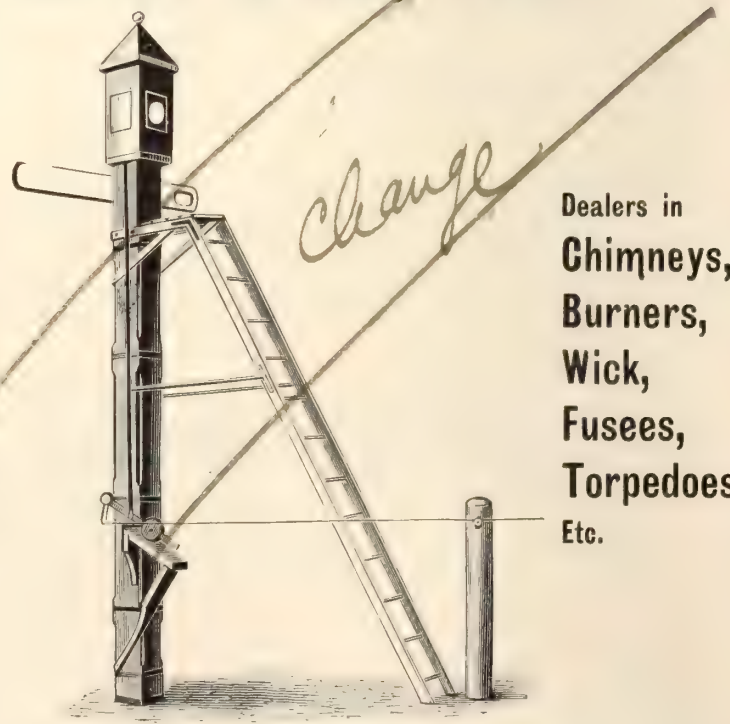
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James Bay Ry. has already four miles of its line built, giving Parry Sound a connection with the Canada Atlantic Ry., and has surveyed a considerable portion of the remainder of the line. The line proposes to pass through the Muskoka and Parry Sound districts, touching various Georgian Bay ports, and west of Lake Nipissing to Sudbury, thence northerly. The country through which the line will pass, Mr. Moore says, would be a traffic producing one from its first operation. The board of control passed a resolution favoring the construction of the line, and appointing representatives to go before the Government. A few days later a deputation representing Toronto, Toronto Junction, and other municipalities waited on the Government and stated the case for the railway. The projected line will, it is claimed, shorten the journey to the west by many miles, and divert transcontinental traffic to Toronto; will connect with the Grand Trunk Pacific, tap the country extending as far north as James Bay and make it tributary to Toronto, and will open up extensive belts of agricultural and mineral lands. The Ontario Government has already recognized the necessity for the line by granting it subsidies in cash and land. Dominion assistance is asked for in order to push forward and complete a project which has hung fire for several years. The line will serve no less than twenty townships, containing good agricultural land, between Parry Sound and Sudbury, and will also serve to develop fertile areas north of the latter town. Some of the townships north of Sudbury are already partially settled, including those of Blezard, Hanmer, Lumsden and Capreol. North of these again are the townships of Wismer and Hutton, containing extensive nickel and iron deposits. At Sudbury the line will get in touch with the industries at Sault Ste. Marie and the Algoma Central system. In the northern district lumbering is extensively carried on, and fine crops of oats and all kinds of vegetables are grown. Wheat has not been raised to any extent, but for the reason chiefly that there is as yet no market for it. The Government promised to give full consideration to the matter. (July, pg. 236.)

Lake Erie and Detroit River Ry.—Representatives of the Pere Marquette Rd., owning the L.E. and D.R. Ry., are reported to be negotiating for the purchase of property between Sandwich and Walkerville, Ont., with the object of constructing a terminal railway to connect the various railways reaching the waterfront at and near Windsor.

The question of the amount to be paid by the L.E. and D.R. Ry. to Chatham on account of the closing of the shops of the old Erie and Huron Ry. when it was taken over by the former company, has been again before the city council, when it was agreed to take steps to ask the Railway Committee of the Privy Council to settle the amount. The company offered \$2,500 in settlement of the claim.

The St. Thomas, Ont., city council is negotiating with the company with a view of having the car shops now at Walkerville located at that place. F. H. Walker recently said there was no doubt that eventually the car shops would be removed from Walkerville to some more central point. (Sept., pg. 307.)

Levis County Ry. (Electric).—The construction of the line from Levis to St. Romuald, Que., is expected to be completed this season, track having been laid to the bridge at Etchemin early in Sept. (April, pg. 119.)

Lindsay, Bobcaygeon and Pontypool Ry.—Work is progressing rapidly on the construction of this line from Burketon on the C.P.R. via Lindsay to Bobcaygeon, Ont., and it is hoped to have the grading completed by Dec. There are nine camps of men at different points between Lindsay and Bobcaygeon. (Aug., pg. 269.)

Londonderry Iron and Mining Co.—The new owners of the plant of the old Londonderry Iron Co. have practically rebuilt the various branch railway lines at the works, and have provided new rolling stock. At the last session of the Nova Scotia Legislature the company was authorized to construct the following lines of railway: from the works at Londonderry to a point on the Bay of Fundy between Great Village and Parrsboro; from a point on the I.C.R. near Brookfield to the company's quarry; from the I.C.R. at Londonderry to the company's works; and from the company's works or any of the lines already mentioned to any quarry or mine in the county of Colchester which the company may hereafter acquire.

Manitoulin and North Shore Ry.—In connection with the closing down of all operations at the mines of the Consolidated Lake Superior Co. in the Sudbury district, traffic has been suspended on the section of the M. and N.S. Ry. already completed. No work in the way of any extension of the line has been in progress recently. (Sept., pg. 307.)

Massey Copper Mines.—The report of the Ontario department of mines for 1903 stated that one mile of line from Massey station on the C.P.R. Sault Ste. Marie branch towards the copper mine 3 miles out, had been graded, and that the ties were on the spot, and rails for two miles of track had been secured. It has since been reported that the line has been completed. (July, pg. 237.)

Metropolitan Ry. (Electric).—Surveys are in progress for the extension of this line from Newmarket to Jackson's Point, on Lake Simcoe, Ont., and for branch lines to Roche's Point and other places on the lake. Nothing has been decided as to when construction will be gone on with. (Nov., 1902, pg. 383.)

Michigan Central Rd.—The Kettle creek bridge, on the Canada Southern division at St. Thomas, Ont., is being strengthened and enlarged to such an extent that it may be said that the bridge has been reconstructed.

The St. Thomas city council has appointed a committee to interview the company's officials in regard to the widening of the subway at First avenue. (Sept., pg. 307.)

Midland Ry.—At the last session of the Nova Scotia Legislature an act was passed authorising the company to construct a line of railway from a point on the I.C.R. near Truro, thence northerly along a route to be approved by the Lieut.-Governor-in-Council, to Northumberland strait. The surveys for this line have been completed, the work hitherto having been done under the old North Colchester Ry. charter. (See North Colchester Ry., Aug., pg. 269.)

Minudie Coal and Ry. Co.—J. H. Seaman, A. Vernon, M. M. Sterne, J. McKeen, J. W. Seaman and R. Mitchell were incorporated under this title at the last session of the Nova Scotia Legislature to construct a railway in connection with their collieries, from near River Herbert Corner to Minudie, in Cumberland county, with power to cross the Joggins line of railway. The company is authorized to issue \$100,000 of common stock and \$50,000 of bonds. It is provided that the land required for right of way, stations, etc., shall be a county charge, and that the line shall be commenced within two years.

Moncton and Buctouche Ry.—The new bridge constructed across the little Buctouche river, at McKie's Mill, N.B., consists of one 72-ft. span and two 63-ft. spans. It is built of pitch pine throughout, and designed to carry the heaviest load. The company contemplates erecting a new and heavier bridge across the Cocagne river during 1904. (Sept., pg. 307.)

Montreal and Southern Counties Ry. (Electric).—It is reported that arrangements

have been completed by A. J. de B. Corribeau, President and General Manager, with a syndicate of Chicago capitalists for the construction of this line, and that work will be commenced at an early date. (Aug., pg. 269.)

Montreal Northern Ry.—Lawton Wark, of New York, President of the M.N. Ry., and connected with the pulp and paper mills at Ste. Agathe, Que., states that the company proposes to construct its line as fast as possible right to Hudson's Bay. The distance by this railway from Montreal will be about 400 miles, and preliminary surveys have been made over it. The country is thickly timbered, and when cleared will be admirably adapted for agricultural purposes. (June, pg. 217.)

Montreal Street Ry. (Electric).—A letter was read at a recent meeting of the road and finance committee of the city council from F. L. Wanklyn, General Manager M.S. Ry., asking for a new franchise, and offers to remove snow, etc., if the city will give a franchise for 30 years, and permission to arrange under reasonable restrictions with other companies about matters affecting the use of the streets on which they run. At the end of thirty years, in the event of expropriation by the city, it is to be agreed that the city will not only acquire the tracks within the city, but the whole of the undertakings owned and managed by the company. The company further agrees to sell workingmen's tickets at the rate of ten for a quarter at certain hours of the morning and evening, and the new obligations are to be in lieu of all taxes, except such as all joint stock companies are required to pay. The matter is under consideration.

At the meeting recently held for the purpose of authorizing the increase of the capital stock, the General Manager explained that among the purposes to which it was to be applied was the construction of additional lines. The company intended to build a line on Atwater avenue, from St. Antoine st. up past St. Catherine st., to form a loop line; then there was a line to be built on Laurier avenue, in the north-east section of the city. Besides, they expected to come to an arrangement with Westmount shortly to build a line along the high level, to connect with the Guy st. line to Monklands. (May, pg. 150.)

Montreal Terminal Ry. (Electric).—J. P. Mullarkey, Managing Director, has applied to the Montreal city council for permission to operate in other parts of the city than it does at present. The council thought that the application should state the streets upon which it was desired to lay tracks, and Mr. Mullarkey promised to send in an amended application, when a special meeting will be called to consider the same. (May, pg. 150.)

New Brunswick Coal and Ry. Co.—The line of the old Central Ry. of New Brunswick has been acquired by and, under the powers conferred by an act passed at the last session of the New Brunswick Legislature, amalgamated with the N. B. C. and Ry. Co. The construction of the line, which extends from Norton, on the I.C.R., to Chipman, 45 miles, was started in 1887 by the Central Ry. Co., the contract being let to Kellam & Wheaton. The company put up the bonds and the contracting interest in the stock for a loan which, with the subsidy, was supposed to be sufficient to complete the road. Dr. L. G. de Bertram, of New York, was the agent of the company, which was made up largely of Philadelphia people. In 1889 the company took the road off the hands of the contractors and completed it. In 1890 the road was operated by the bondholders, who continued to operate it until 1903. In 1901 an option on the line was given by the bondholders to E. G. Evans, representing the N. B. C. and Ry. Co., and under it about \$80,000 has been expended on its improvement. All the trestle bridges have been rebuilt with southern pine lumber.

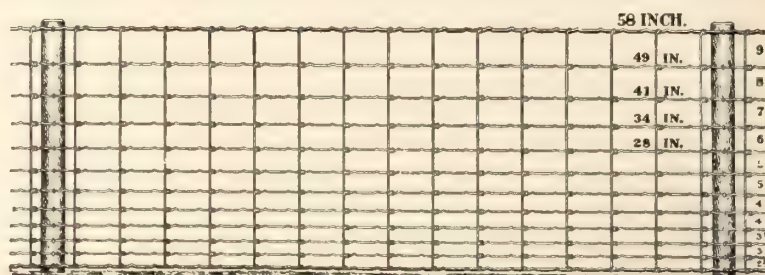
The truss bridges have been repaired, but in the course of a year or two will probably be rebuilt with steel superstructures and masonry substructures. About 600,000 ft. sup., of hard lumber was used in the work. A large amount of money has also been spent on the road-bed in ties, in improving the road-bed and in providing new rolling stock and additional buildings. It is intended to further improve the line and raise the standard. Another lift of ballast in addition to the 130,000 cubic yards already distributed will be put on. Mr. Evans has had full charge in the improvements made. The yard at Chipman, formerly the terminus of the line, has been enlarged and provided with greater facilities for the handling of freight.

Under the charter of the N.B.C. and Ry. Co. there has been constructed a line from Chipman to a point beyond Minto, in the Newcastle coalfields. This line is now under construction to Gibson, from which point it is proposed to carry it to Fredericton. The portion of the line completed has been constructed in the most substantial manner. The bridges are of steel with masonry substructures on concrete foundations. The large and important culverts are of stone laid in cement mortar, and the small culverts are of stone laid dry. The line is fenced on both sides with wire fencing; and snow fences have been constructed where required. Special attention has been paid to drainage by the provision of surface drains throughout the whole length of the line. The road has been ballasted its entire length with a bottom lift of about 6 ins. and a top lift is in process of being applied. It will be 4 ins. deep and gravel is being used. A telephone line extends over the whole line of railway with connections with the New Brunswick Telephone Co. at Norton. Station buildings have been erected at Newcastle and Minto, which are quite close to each other, and about 14 miles from Chipman. Flag stations have been placed at Iron Bound Cove and other places, and a large and commodious freight shed has been built at Minto; a three-stall roundhouse and other facilities. The station at Minto is large and convenient and the station-master will have his home in it. A tank house has been erected about 1,600 ft. to the westward of Minto station. The sidings are, one extends to the King, Kennedy's and Sullivan's mines; the second siding is over 3 miles long and runs to the south of the main line, connecting with the Welton, O'Leary, Coakley, McDonald, Balkam, Evans, Gibbon and Kelly coal mines near Newcastle. The contract was let to the James Barnes Construction Co., which also has the contract for the line from Newcastle to Gibson. E. G. Evans is Chief Engineer and General Manager, and the directorate consists of G. McAvity (President), A. P. Barnhill, C. N. Skinner, A. I. Trueman, of St. John; T. B. Winslow, G. W. Allen, of Fredericton. (Sept., pg. 307.)

Nepigon Ry.—Work is being proceeded with on this line from Nepigon station, on the C.P.R. transcontinental line, to the south shore of lake Nepigon, Ont., about 40 miles. (Aug., pg. 269.)

Niagara Transfer Co.—A company with this title has been incorporated under the laws of the State of New York with the following directors: E. Michoes, J. A. Roberts, J. C. Conway, Senator T. Ellsworth, T. C. Becker, I. Michael, H. Woods, S. T. Franchot and H. W. Alvord. The object of the company is to bring in all the railways operating in Canada and United States, and meeting at the Niagara river. The company has secured options on land from the International bridge to a point beyond Rattlesnake island, where the proposed bridge of the Pere Marquette Rd., connecting its Canadian line, the Lake Erie and Detroit River Ry., with the U.S., terminates. The land pro-

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posed to be acquired covers about five miles of water front and has a considerable depth. It is proposed to construct about 70 miles of track, and to connect the same with the switching grounds of Tonawanda and Buffalo. The plan of operations of the company will be to receive the cars from all companies operating on both sides of the river and to distribute the same.

Nova Scotia Southern Ry.—Tracklaying is in progress and is expected to be completed early in Oct. on this line from New Germany to Caledonia Corner, N.S., about 22 miles. The charter it is proposed to amalgamate with the Central Ry. of Nova Scotia, recently purchased by Mackenzie, Mann & Co., and the new line, when opened, will be operated as a branch of it. (July, pg. 239.)

Nova Scotia Steel Co.—The company is constructing a branch line, two miles in extent, from the Point Edward quarries to the I.C.R. at Big Brook siding, near Leitches Creek station, N.S.

Orford Mountain Ry.—The plans and profiles of the proposed extension of the O. M. Ry. from Kingsbury to Windsor Mills, Que., have been deposited in the registry offices at Richmond and Sherbrooke, Que., in compliance with the Railway Act. (July, pg. 239.)

Oshawa Electric Ry.—The company proposes to extend its line along St. Mary st., Oshawa, and a number of citizens appeared before the Railway Committee of the Privy Council in opposition to the proposal. The committee declined to entertain the opposition as the town council had not countenanced it.

Ottawa and New York Ry.—We were recently advised that it is contemplated to carry out a number of improvements on the line, the extent and exact character of which will be decided at a meeting of the directors to be held at an early date.

Ottawa, Northern and Western Ry.—Track has been laid to within six miles of Maniwaki, on the extension of this line from Gracefield. Maniwaki is expected to be reached by the tracklaying gang early in Oct. (July, pg. 239.)

Pere Marquette Rd.—The P. M. Rd. has completed arrangements by which it will use the tracks of the Chicago Terminal Transfer Co., and use the Grand Central station in Chicago. The arrangement will take effect in Jan., 1904, when it is expected that the connecting line from New Buffalo to Chesterton, Ind., will have been completed. From Chesterton to Chicago the P.M. Rd. has arranged for trackage rights over about 20 miles of the Lake Shore line. (July, pg. 239.)

Peterboro Radial Ry. (Electric).—The by-law giving a franchise for an electric railway in the town was passed by the council Sept. 15. The company is given a franchise to operate a street railway in the town, the franchise to extend over a period of 30 years from July 1, 1904. The company will use the tracks of the old Peterboro & Ashburnham Ry. Co., and agrees to have the system in operation not later than July 1, 1904. The rolling stock equipment and income of the railway is to be exempt from taxation during the life of the franchise, and it is understood that the contract for street lighting for ten years is to be given to the Peterboro Light & Power Co., a constituent company of the P.R. Ry. Co. The capitalists interested in the street railway are those identified with the American Cereal Co., including Hon. Senator Geo. A. Cox. The work of equipping the road will be proceeded with at once, and orders are being placed for the necessary rolling stock and generators. The company is spending \$250,000 on a new dam and power house, where the power to operate the railway will be generated. (Aug., pg. 269.)

Prince Edward Island Ry.—Tracklaying is being proceeded with on the Murray Har-

bor branch. Work was commenced at Montague Cross and is in progress towards the Hillsboro river, where the bridge to give a connection to Charlottetown is being constructed. The tender of M. F. Schurman & Co., Kensington, P.E.I., has been accepted for the construction of the stations and other buildings on the branch. Work is being proceeded with on the substructure of the bridge over the Hillsboro river and it is expected that the work will be completed in the fall of 1904. The spans for the bridge are to be brought across from the I.C.R., having been replaced on the Miramichi river bridges by heavier structures. (Sept., pg. 307.)

Quebec Bridge and Ry. Co.—The work of completing the approaches and of preparing for the erection of the main spans of the superstructure is being pushed ahead. The work is of so extensive and heavy a character that it is not expected it will be completed until well on into 1904. Negotiations are understood to be in progress with the Dominion Government with a view of the bridge being taken over as a part of the Government section of the new national transcontinental railway. (Aug., pg. 269.)

Quebec Central Ry.—The station at St. Henri, Que., was recently burned, the building being totally destroyed.

Quebec Ry. Light and Power Co.—Owing to the increasing passenger traffic on the line to Ste. Anne de Beaupre, Que., it is reported that the directors are considering the advisability of taking in hand the double tracking of the line at an early date.

Reid Newfoundland Co.—C. Petrie has recently made a thorough inspection of the main line from St. John's to Port aux Basques, and of the various branch lines, with a view of making a special report to the Government respecting the physical condition of the line. A special correspondent of the Montreal Herald has recently gone over the line, and in referring to it, and to what the Reid Newfoundland Co. has done for the island colony, says: Evidences abound on every hand illustrative of the tact and ability of the Reid Newfoundland Co. The great works already perfected tell the story of difficulties overcome, of prejudice combatted and of victory achieved where failure was anticipated by persons unacquainted with the energy and faith of those at the head of the company. Although the last winter was very severe, the railway was operated right through to Port aux Basques without serious interruption, except for three weeks, when banks of snow twenty feet deep stopped the running. During the year 20 new bridges were built, having spans of from 20 ft. to 150 ft., each erection being of the most substantial character warranted to withstand the rush of waters or the assaults of ice. The rolling stock is first-class, and though largely increased is occupied to its fullest capacity. The comfort of passengers receives special attention, the testimony of the travelling public certifying that nothing is wanting in this respect. The natural result follows, that tourists and sportsmen have increased threefold during the season, and still larger numbers are planning to put in an appearance for sport with the gun during the fall.... To-day by the energy and business tact of the Reid Newfoundland Co., the fact of the country's wealth in timber, in minerals and as an Eldorado for sportsmen are known and appreciated abroad, as they never could have been in the absence of the railway. Foreign capital has been drawn, chiefly by the Reids, to invest in the resources of the country.... The new freight dock at St. John's will afford conveniences for quick despatch in handling freight, and, as the rates charged are reasonable, there is no doubt the railroad will become the great carrier of freight from Canada and the United States to Newfoundland. The

Reids are undemonstrative men, but they display large experience and marked ability in their works. Nothing shoddy appears anywhere in the large expenditures already made, for which first-class returns have been made. One governing mind has planned the enterprise—including the building of first-class steamers to connect the principal harbors with the railroad—and has perfected all the details within a brief period in A1 style. The article concludes by recommending the construction of a first-class hotel for the accommodation of tourists, and personal references to W. D. Reid, Vice-President, and R. G. Reid, jr., General Superintendent. (June, pg. 217.)

St. John, N.B., Ry.—The company has had some difficulty with the city council in connection with the extensions it is making in Carleton and other points in the city. A good deal of the work on the extension had been completed, when, on Sept. 17, the company discharged all the men at work on the west side, and W. Z. Earl, General Manager, says that the work will not be recommenced until the whole of the matters in dispute with the city council are settled. (Feb., pg. 47.)

St. John's, Nfld., Street Ry. (Electric).—In consequence of the city council having decided to repair a number of streets, the company has arranged to take up some of its existing tracks and lay down additional ones to form a new belt line. (June, pg. 218.)

St. Thomas St. Ry. (Electric).—The St. Thomas, Ont., city council has determined, for the present at any rate, to keep the management of its street railway entirely in its own hands, instead of appointing commissioners. No decision is expected to be reached until early in 1904 as to any extensions of the line. (Aug., pg. 269.)

Schomberg and Aurora Ry.—The award of the arbitrator, Judge Winchester, in the action of Capt. Armstrong, of Lloydtown, against the S. and A. Ry. Co., is not likely to be given out for some time. The proceedings arise out of what Capt. Armstrong says is a breach of the agreement when the Metropolitan Ry. took over the S. and A. Ry. from the original promoters. This agreement stated that the line was to be constructed to Lloydtown or near thereto, but the line as constructed does not touch Lloydtown. The plaintiffs state that there is a practicable route to the village, and the company alleges that there is not. Evidence upon this point has been heard by the arbitrator at length. (Aug., pg. 269.)

Sherbrooke Street Ry. (Electric).—The agreement between the city and the company in reference to the double-tracking of Bridge and Pine streets has been signed by the city, but no work having been done under it, the council has withdrawn its consent to the work. (Aug., pg. 269.)

Southwestern Traction Co. (Electric).—Representatives of the syndicate of English and Scottish capitalists, who have been interested in this electric line, recently visited Canada, and have been over the route. It is reported that the necessary financial arrangements have been completed and that the work of construction will be gone on with at once. (Aug., pg. 269.)

The Spokane and Northern Ry., through one of its subsidiary companies in British Columbia, is constructing a spur line to the White Bear mine.

Sydney and Glace Bay Ry. (Electric).—Surveys have recently been made for the extension of the line from Bridgeport to New Aberdeen, N.S., and it is reported that the work will be gone on with at once.

Sydney and Loughsburg Ry.—The company's station at Morien Jct., two miles from Port Morien, N.S., was completely destroyed by fire, Sept. 6. (Feb., pg. 47.)

Temiskaming and Northern Ontario Ry.—Tracklaying is being proceeded with, and it is expected that by the end of the year 60 miles of rails will have been laid from North Bay, Ont. Sixty-five miles of grading is expected to be completed by the end of the year, out of North Bay, and about 10 miles, from New Liskeard, southerly. The contractor expects to have the line completed from North Bay to New Liskeard, 110 miles, by July, 1904, about six months earlier than the date called for in the contract.

Respecting the proposed extension of the line from New Liskeard, northerly to a junction with the projected line to be constructed from Moncton, N.B., to Winnipeg by the Dominion Government, the Ontario Government has voted \$10,000 for making the additional survey. Legislative authority will be asked at the next session for the construction of this extension. W. B. Russell, Chief Engineer, reports that a reconnaissance survey has been made by one of the engineers on the staff, of the country north of New Liskeard, and that he states that the country will be a comparatively easy one in which to construct a railway. A further survey is in progress, and when this is completed a party will be organized to make the regular survey. It is thought at present that the line, to give the easiest curves and grades, will follow the valley of the Wabis from New Liskeard for about six miles, where there is an easy pass into the valley of the Blanche river. The survey would then follow the valley of the Blanche river to its source. (Sept., pg. 307.)

Thunder Bay, Nipigon and St. Joe Ry. D. F. Burk, President, recently informed us that there had been no abandonment of this projected line from Port Arthur, Ont., to lake Nipigon, and to the lake St. Joseph, Albany river, notwithstanding the arrangement to transfer a portion of the land subsidy voted by the Ontario Government to the Nipigon Ry. Co. He did not know when construction would be commenced, but negotiations were in progress to that end.

Tobique Valley.—J. E. Stewart, of Perth, N.B., is at the head of a syndicate of New Brunswick men, which is looking over the ground with a view of promoting the construction of a railway from Plaster Rock, the terminal point of the Tobique Valley Ry., further up the valley to the Forks, then to branch across country so as to effect a junction with the Restigouche and Western Ry., now under construction from Campbellton to St. Leonards, N.B.

Toronto and Hamilton Ry. (Electric).—The application at the current session of the Dominion Parliament of a company to construct an electric railway to connect Hamilton and Toronto, with powers to acquire other lines, has been approved by the House of Commons. It was opposed by a large number of interests including the Ontario Municipal Association, mainly on the ground that a Dominion incorporation would take away from the municipalities the right to regulate speed, etc. The bill was opposed by the same interests in the Senate, but it passed its third reading Sept. 24. Senator Kerr addressed a letter to the press in which he says:

"The bill is to incorporate a company to build a railway—I want to emphasize the word 'railway'—to build a railway from Toronto to Hamilton. The impression is that it is an electric tramway. I desire to have it understood here that it is nothing of the kind, but that it is destined to be a main through railway from Toronto to Hamilton, crossing the G.T.R. near Burlington Beach, and crossing at Burlington Beach, with the permission of the municipality, if that can be obtained, and which no doubt can be obtained of the townships of Saltfleet and Nelson, and to a point connecting with the other two

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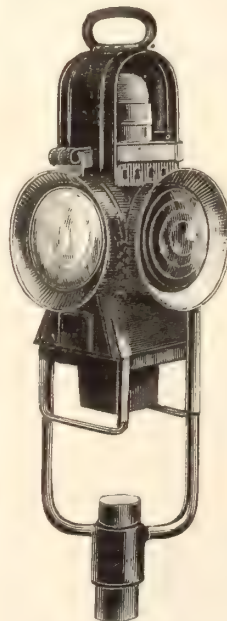
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roads leading from there to Niagara Falls. The idea and ambition of those who are seeking incorporation for this purpose is to build a high-class railway, of the very highest order, equipped in the best and most complete and perfect manner, and to have it propelled with power from Niagara Falls as an exemplification of the finest piece of railway construction and the finest piece of electric road on the continent, and that means anywhere in the world. I can conceive of nothing in the present age better calculated to be of benefit to Canada than a road of that order, built under such circumstances, in such a place, and equipped in that manner, drawing power from Niagara Falls, connecting on the Niagara river with the leading United States railways, on the boundary of the Dominion, and from there to Hamilton over the lines of railroad which are already within the jurisdiction of this Dominion, connecting at Hamilton with this new road to be built from Toronto to Hamilton, making one complete line." The township council of Nelson has granted permission for the construction of the line through the township, and a Hamilton solicitor is engaged in looking into the titles of properties along the route on which the promoters of the line have obtained options. (July, pg. 241.)

Toronto, Hamilton and Buffalo Ry.—The company is building a large addition to its bonded warehouse in Hamilton, Ont. The new addition is 102 ft. long, and 30 ft. wide; it is of fireproof construction, and is expected to be ready for receiving freight early in Oct.

Press reports state that a surveyor has been over the route of a projected extension of the line from some point, whether Brantford or other place, to Woodstock. E. Fisher, General Superintendent, says there is no truth in the report that the company intends to extend its line to Woodstock. A later report states that the projected extension will be from Brantford to Drumbo, where connection will be made by the C.P.R. line from Toronto to Windsor. (Sept., pg. 307.)

Toronto Ry. (Electric).—A writ has been issued by the company against the city asking the courts to declare that it may lay tracks on the 230 ft. reserve on Avenue road in particular. The company claims that under its agreement with the city it may lay tracks on any street, and the council holds that the company may only lay tracks on such streets as it may be directed to do by it.

The company is installing additional plant in its power house so as to secure additional power for its various lines. The new plant will give 3,200 additional h.p., and with a view of securing extra power during the busy hours a storage battery with a capacity of 3,000 ampere hours will be added. During the times of ordinary traffic the surplus power is stored in this battery, and is drawn upon at the rush hours. For the distribution of the additional power over the lines between 40 and 50 miles of feed wire has been strung. (Aug., pg. 269.)

Vancouver, Victoria and Eastern Ry.—The construction of the spur line from Grand Forks to Phoenix, B.C., has not been commenced, and it is not expected that anything will be done on it this year. (July, pg. 241.)

Vancouver, Westminster, Northern and Yukon Ry.—Work is being proceeded with on the line which the company is constructing into Vancouver from New Westminster, B.C. The company has been having some difficulties with the city of Vancouver respecting the right of way, and with the C.P.R. respecting the crossing of its tracks at Sapperton. These matters were before the courts, the Railway Committee of the Privy Council, and the Cabinet. The latter body was asked by the C.P.R. to revoke the permission for the V. W. N. and Y. Ry. to cross its tracks at

Sapperton, but the cabinet declined to interfere. (Sept., pg. 307.)

See Great Northern Ry., U.S.

Winnipeg Electric Street Ry.—The contract for the construction of the extension of the W.E. St. Ry. into St. Boniface was signed Sept. 19. The work has been commenced and the line is expected to be in operation by the winter. (Sept., pg. 307.)

Westminster Bridge Co.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company with this title to acquire from the B. C. Government the bridge now under construction over the Fraser river at New Westminster, B.C., and with power to construct other bridges. The application is signed by J. Hendry, President of the Vancouver, Westminster, Northern and Yukon Ry.

Canadian Northern Ry. Construction.

General.—In explanation of the interviews published in the early part of Sept., in which it was stated that there had been an abandonment of the C.N.R. transcontinental plans, W. Mackenzie, President, recently said that the statement made by D. D. Mann had been entirely misunderstood. The plans of the Canadian Northern, he said, so far as an Atlantic terminal was concerned, had been spoiled by the announcement of the Grand Trunk Pacific scheme, but the road would be built and the eastern terminals would be Quebec, Ottawa, Montreal and Toronto. (Sept. pg. 308.)

Port Arthur to Winnipeg.—We have been officially advised that considerable improvements have been effected on the line between Port Arthur, Ont., and Winnipeg, Man., since the beginning of the year. Three steam shovels were at work for some months in connection with improvements on the line, and the roadbed is now in excellent condition. The line has been diverted in several places to improve the curvature and to get clear of soft ground. A considerable number of trestles have been filled in; the balance of trestles strengthened by driving extra piling and putting in stringers. Side tracks have been lengthened 2,500 ft.; this is necessary on account of the very large locomotives recently put on this portion of the line hauling 65 to 70 cars. All the light steel has been lifted between Port Arthur and Stanley Jct., Ont., and replaced with heavy rails. New stations and section houses have been erected all along the line, and many small improvements made in the way of "off take" ditches, etc. (June, pg. 205.)

Winnipeg Terminals.—Some amendments have been made in the proposed agreement between the city and the C.N. Ry. relative to the closing of Broadway east, Christie st., and several other lanes on the east side of Main st., between Water st. and Assiniboine river. The company proposes to give the city a road 80 ft. wide from the front of Water st. to Broadway bridge. The board of works postponed the consideration of the question, and the matter is still under discussion. The construction of the following works, in addition to the new station and hotel, will be gone on with as soon as the agreement is signed: Machine shop, 300 ft. long by 100 ft. wide; blacksmith shop, 80 ft. by 70 ft.; asphalt, 100 ft. long; coal shutes for coal engines; cold storage shed, 100 ft. by 175 ft.; dry kiln, 30 ft. wide by 60 ft. long; planing mill, 180 ft. by 60 ft.; freight car repair shed, 220 ft. by 120 ft., to hold twenty cars; store buildings with offices for mechanical department, 300 ft. long by 50 ft. wide; large power house; coach repair shop, 120 ft. by 25 ft., to hold six coaches. This building will also include cabinet and coach finishing shop. Transfer table between freight car and coach repairing shops; foundry, 100 ft. by 60 ft.

All these buildings will be composed of fireproof materials, being built of either brick, concrete, cement or wire lathe.

The site for the 40 stall roundhouse has been pegged out and is being cleared for the foundations. Smith and Sharpe are the contractors. (Sept., pg. 309.)

Emerson Terminals.—It has been decided to construct terminals at Emerson, Man., and a Y. connection with the Great Northern Ry., U.S., at that point. At the present time the terminal work of the company is being done by the Northern Pacific Ry., at Pembina, N.D.

New Stations in Manitoba.—New stations have been opened at Eden and Birnie, on the McCreary branch; and grain-loading platforms have been erected at 15 other points, and grain stations have been opened at a number of additional places.

Rosendale Extension.—Grading has been completed for 35 miles on this extension from Portage la Prairie. Tracklaying was commenced during the last days of Sept., and it was expected to lay at least 20 miles, to Rosendale, this season. If sufficient rails can be obtained track will be laid beyond Rosendale towards Brandon. (Aug., pg. 271.)

McCreary Branch.—Ballasting has been completed on this branch, and a passenger train service was put on from Neepawa, Man., early in Sept. (Aug., pg. 271.)

Prince Albert Extension.—Grading into Melfort, Sask., was expected to be completed by the end of Sept. Stanley and Gerond have completed their contract at the Melfort end, and in the early part of the month moved their outfit further east to Leather river, to fill in a gap and meet the men grading westerly. Tracklaying has been going on for some time, and is progressing at a satisfactory rate. (Sept., pg. 309.)

Hudson's Bay Line.—A survey party started out from Erwood, Sask., early in June, for Port Nelson, on Hudson's Bay, to survey a route for the projected branch line from the C.N.R. to Hudson's Bay. No news had been received from the party up to Sept. 15. The object of the party was to make a thorough examination of the land from a point north-east of Erwood to Port Nelson, and to locate a route favorable for the construction of a railway. The distance between the two points is about 300 miles. (Sept., pg. 309.)

Edmonton.—The disputes as to right of way in Edmonton, Alta., were expected to be settled so as to permit of the laying of track from the present station to the Hudson's Bay reserve early in Oct. The excavations for the new station buildings on the reserve will be completed during the fall, and material collected ready for the building of a new station in the spring. (Sept., pg. 309.)

G.T.R. Betterments, Construction, Etc.

Montreal Terminals.—The company has been for some time purchasing land in the vicinity of Turcot, between Montreal and Lachine, and a press report states that it has acquired altogether 320 acres. The object in view is the laying out of new yards at this point, and the erection of running sheds for the accommodation of the locomotives. This would do away with the present running sheds at Point St. Charles, and relieve the yard there, which is at present badly congested. The yards at Point St. Charles would in future be used for local freight and storage purposes only.

Lindsay Yards.—A third siding, in addition to the two already being constructed at Lindsay, Ont., is to be put down. Each siding will accommodate two double-header trains of 30 cars each. (Sept., pg. 309.)

Barrie Car Shops.—A site has been located at Barrie, Ont., for a shop for the repairing of cars on the northern division of the line.

Midland and Victoria Harbor Yards.—The yards at Midland and Victoria Harbor, Ont., are to be rearranged and enlarged in order to meet the increased demands of the grain carrying trade at these ports.

Yonge St. Bridge.—The matter of the construction of a bridge over the tracks at the foot of Yonge St., Toronto, was before the Railway Committee of the Privy Council, Sept. 22, and was adjourned for a week. The Mayor of Toronto stated in reply to a question that the Council had decided to retain the level crossing, and to press for the construction of a bridge in addition.

Toronto Yards.—Rapid progress is being made with the laying out of the new freight yards on the site of the old Parliament Buildings, Toronto. The foundations for the office building, fronting on Simcoe st., have been completed, and the three storey building is in course of erection. The structure will be of brick, with brown stone trimmings, the main entrance, on Simcoe st., being entirely of stone. The outward freight shed, 930 ft. in length, and extending from the office building to John st., is 40 ft. in width from Front st. It is a single storey building, and is constructed of steel columns, with steel girders supporting the roof. The steel columns are set on concrete foundation pillars, and the floor is supported on a double row of cedar posts and the concrete pillars. The floor of the shed consists of one thickness of matched hemlock, and a top thickness of matched maple laid diagonally, and is supported on oak beams placed 15 ft. apart. The roof will be a flat gravelled one, and the sides of the shed will be formed by large double sliding doors. The end at John st. will be of brick. The other portion of the area is being laid out for tracks. The work is expected to be completed early in Dec. The erection of the inward freight shed, which will be a duplicate of the outward shed, will not be gone on with until the spring. (Sept., pg. 310).

Toronto-North Bay Double-tracking.—G. C. Jones, Superintendent Middle Division, Toronto, has written to the Toronto city council in respect to a proposal to extend Wallace avenue across the tracks of the old Northern Ry. He states that the G.T.R. would not assent to the extension of the street unless the city assumed the cost and the liability for accidents. The double-tracking of

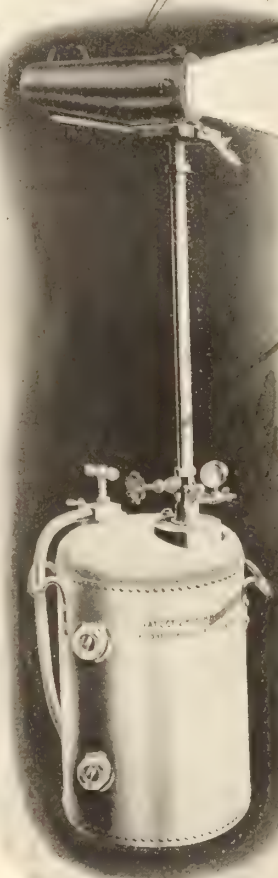
the line, which, he added, was in contemplation, would increase the liability for accident.

Hamilton Improvements. Objection has been made by the Toronto, Hamilton and Buffalo Ry. to the erection of an overhead bridge at the corner of Wellington and Ferrie streets, as is proposed by the agreement between the G.T.R. and the city. The grounds upon which the objection is made are that the bridge is unnecessary, is not in the public interest, and will destroy the value and

usefulness of the T.H. and B. freight yard at the corner of Wellington and Simcoe streets. (June, pg. 243.)

Brantford Improvements.—After lengthened negotiations which were more than once in danger of being postponed until the spring of 1904, or of being broken off entirely, an agreement has been reached respecting the improvements to be effected in Brantford, Ont., owing to the carrying of the main line through the city. Summarized, the agree-

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ment gives the company permission for the closing of the four crossings at Niagara, Albion, Bedford and Bond sts.; for diverting Paris road through the Lyons property to St. Paul's crossing; for the closing of north side of Durham st., and for the extension of the double-track on Clarence st. as far south as Nelson st., to be used only for regular traffic and to occupy no more street than at present, and the company agrees to the following: St. Paul's avenue to be left open with a signal bell placed there; the bell is to be operated at the expense of the company; to construct a subway at Albion st., the necessary approaches to be made to Albion st. from Bedford, Bond and Pearl streets; to construct a subway at Niagara st.; to erect a new station valued at \$30,000; gates at Market and George sts. to be operated at the company's expense by one man at Market st.; a new street north of the cemetery, property to be purchased by company, street to be opened by city; a foot passage under subway from Gray and Elgin streets. The city pays for the streets, for the purchase of all property necessary for approaches to the subways, and one-half of all damages to property incidental to the construction of the subways. The formal agreement will be presented for signature to the council on an early date. Some of the work is being proceeded with, but the main features of it will not be carried out until early in 1904. The plans prepared are being revised to suit the conditions of the agreement. (Sept., pg. 310.)

Paris Improvements.—The differences between the G.T.R. and the Paris town council respecting the proposed alteration of the line between Paris and Brantford will probably go before the Railway Committee of the Privy Council. It is agreed by both sides that the best way to improve the grade is to divert the line, and the company has made a certain proposal, but asks that Paris contributes to the cost. This the council refuses to do, and also refuses to consent to any plan of diversion of the line which will interfere with the public park.

Stratford.—Application is being made to the courts by the representatives of the estate of M. F. Goodwin, Stratford, Ont., for an injunction to prevent the laying of tracks on the south side of Falstaff st., on some land recently acquired there. (July, pg. 243.)

Grand Trunk Pacific Ry.

The bill incorporating the Grand Trunk Pacific Ry. has been passed by the Senate and only requires the consent of the Governor-General to become law. The act has been amended so as to give power to construct a line to Fort William or any other Canadian port on Lake Superior, the object being to give the company the choice of any other point on Lake Superior to which a line could be more easily constructed than to either Port Arthur or Fort William.

The discussion on the agreement with the G.T. Pacific Ry. Co. has been continued in the House of Commons and the end, at the time of writing, Sept. 29, does not appear to be in sight, although Oct. 15 has been mentioned as a probable date for the closing of the session. One of the important features arising out of the discussion has been that an intimation has been given by the Government that legislation will be introduced for the purpose of creating a fund from the sale of Dominion lands for the purpose of satisfying all the obligations of the Government in connection with the G.T.P.Ry. The intention is, the Ottawa correspondent of the Globe says, to permit settlers who take up homesteads to purchase an additional 160 acres adjoining their locations at a certain price per acre, to be fixed, and utilize the proceeds for the pur-

pose of retiring the bonds issued in connection with the railway work.

Survey parties are in the field at different points of the projected route, and as dog trains are being engaged the operations, particularly between Yorkton, Sask., and Edmonton, Alta., will be carried on during the winter. T. H. Armstrong, engineer to the Edmonton corporation, has been granted a lengthened leave of absence in order to engage in survey work for the G.T.P.Ry., east of Edmonton. Another party is operating west of Yorkton, and a third party is being organized at Yorkton to operate east. (Sept., pg. 309.)

MAINLY ABOUT PEOPLE.

J. McAdam, railway contractor, St. Peters, P.E.I., died suddenly at North Bay, Ont., recently.

E. F. Trites, Paymaster of the Intercolonial Ry., has recently been spending a holiday in British Columbia.

R. Kerr, Passenger Traffic Manager C.P.R., has returned to Montreal after a six weeks' business trip to England.

W. Pearson, who died suddenly at Rymal, Ont., Sept. 8, was father of John Pearson, inspector of the Hamilton Street Ry. Co.

Jas. Cochrane, Mayor of Montreal, attended the convention of the Old-Time Telegraphers, at Milwaukee, Wis., Sept. 23, 24 and 25.

J. Earls, Secretary and Treasurer Canadian Freight Association, has presented a raccoon to the Toronto city menagerie at Riverdale park.

R. G. Reid, President Reid Newfoundland Co., is spending a lengthened holiday in France. He is not expected to return to Montreal until Nov.

R. A. Smith, for many years connected with the Allan Line at Montreal, died in London, Eng., recently, where he had resided since 1889, aged 70.

Miss V. M. Kennedy, eldest daughter of Jas. Kennedy, foreman of construction, G.T.R., Hamilton, Ont., died in St. Joseph's hospital there recently.

Miss E. M. King, daughter of S. King, Master Car Builder I.C.R., at Moncton, N.B., was married there to E. B. Graham, of London, Ont., Sept. 18.

Sir W. Van Horne and Sir T. G. Shaughnessy are reported to be members of the syndicate proposing to erect a large steel plant near Chippewa, Ont.

A. J. de B. Corriveau, Vice-President and General Manager, Montreal and Southern Counties Ry., has opened an office on Notre Dame st., Montreal.

A. S. Coleman, foreman painter in the I.C.R. car shops, Moncton, N.B., attended the convention of Master Car Painters, recently held in Chicago, Ill.

Mrs. McNicoll, wife of D. McNicoll, General Manager C.P.R., recently arrived in Montreal from England, where she had been spending the summer.

Miss Evelyn Lukes, daughter of Lewis Lukes, of Mackenzie, Mann & Co., Toronto, was married in Toronto Sept. 17, to A. G. Slaght, of Simcoe, Ont.

A. A. Wanless, of the engineering staff of the Nova Scotia Steel and Coal Co., Sydney Mines, N.S., was married in Toronto Sept. 16 to Miss F. T. Montgomery.

G. W. Mitchell, Purchasing Agent, Great Northern Ry. of Canada, was married in Quebec to Miss R. Scott, daughter of the late C. A. Scott, C.E., Sept. 16.

R. Booth, sr., who was actively engaged in the construction of the lines of the Montreal Telegraph Co., from 1850 onwards, died at Huntingdon, Que., recently.

S. J. Hungerford, Master Mechanic, Western division C.P.R., Calgary, Alta., arrived in Montreal, Sept. 10, for surgical treatment at the Royal Victoria hospital.

J. Wilkinson, locomotive foreman, C.P.R., London, Ont., was entertained at dinner by the employees of the department on his resigning from the Company's service.

Miss C. Steers, niece of Hon. W. Harty, M.P., President Canadian Locomotive Co., Kingston, Ont., was married there to J. Primrose, Brooklyn, N.Y., Sept. 9.

P. J. Lally, well known in lacrosse circles, has resigned his position as agent of the G.N.W. Telegraph Co., at Cornwall, Ont., which he has held for the past 16 years.

E. A. Rodey, yardmaster of the C.P.R. and Boston and Maine Rd., at Newport, Me., has resigned that position to enter the service of the New York Central and Hudson River Rd.

Superintendent McIntee, of the Colonial Copper Co.'s line of railway at Cape D'Or, N.S., was run over by a car Sept. 12, and as a result one of his legs had to be amputated.

Lord Strathcona, who visited Canada to attend the meeting of the Associated Chambers of Commerce at Montreal, recently, sailed from New York for England, Sept. 19.

F. H. Wallace, Toronto Junction, Ont., has been elected a member of the executive board of the Brotherhood of Railway Carmen of America, at its recent convention in St. Louis, Mo.

Otto Emerson, of the Reid Newfoundland Co.'s staff at St. John's, Nfld., was presented with an address and a purse containing \$200 in gold, on the occasion of his recent marriage.

F. Nicholls, President Canadian Shipbuilding Co., Toronto, and connected with other transportation companies, has presented a white camel to the Toronto city menagerie at Riverdale Park.

W. H. Moore, assistant to the President Toronto Ry. Co., and assistant solicitor, Canadian Northern Ry., recently underwent an operation for appendicitis, in Ottawa hospital, and is recovering.

Sir T. G. Shaughnessy, President C.P.R., accompanied by Lady and Miss Shaughnessy, R. B. Angus and the Misses Angus, left Montreal Sept. 16 for a holiday and business trip to British Columbia.

W. R. Callaway, General Passenger Agent, Minneapolis, St. Paul and Sault Ste. Marie Ry., Minneapolis, Minn., and Mrs. Callaway celebrated the twenty-fifth anniversary of their wedding Sept. 3.

N. L. Rand, Division Master Mechanic, I.C.R., Moncton, N.B., was present at the recent convention of Travelling Engineers in Chicago, and took part in the discussion on Locomotive Front-ends.

J. Judge, heretofore conductor on the Kingston and Pembroke Ry., has been appointed to a position on the Temiskaming and Northern Ontario Ry., under construction for the Ontario Government.

C. H. Beavington, formerly Trainmaster G.T.R. at Montreal, and more recently with the Rutland Rd., has been appointed to a position on the Pittsburg, Shawmut and Northern Rd., at Olean, N.Y.

Sir Wm. Van Horne purchased the imported Shorthorn bull Spicy Marquis, No. 36,118, which won the first prize in the three-year-old class at the recent Dominion Exhibition, Toronto. The price paid was \$3,000.

H. J. Sutherland, C.P.R. local freight agent, Winnipeg, Man., was married in Toronto to Miss N. Herbert. On returning to Winnipeg, Sept. 17, he was presented with a cabinet of silverware by the clerks of the department.

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J. R. Booth Elevator, Depot Harbor, Ontario	"	1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
Union Elevator, East St. Louis, Ill.	"	1,100,000 "
Montreal Warehousing Co.'s Belt Conveyor System	"	"

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160 acres at \$4.50 per acre, 1st instalment \$107.85, and 9 equal instalments of \$90.
160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

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The marriage of Miss C. Whyte, daughter of W. Whyte, Assistant to the President, C.P.R., at Winnipeg, Man., to J. A. Hunter, Secretary Manitoba Cement Building Co., Winnipeg, is announced to take place early in Oct.

C. A. Hanson, well known in railway finance circles in Montreal and elsewhere, has declined an invitation to become the candidate for the representation of the St. Austell division of Cornwall, Eng., in the Imperial Parliament.

J. M. Buntzen, General Manager, B.C. Electric Light and Ry. Co., was entertained at dinner by the citizens of Vancouver, B.C., and the chief employees of the company Sept. 3, on the occasion of his return from a trip to Europe.

W. H. Rosevear, jr., was presented with a suit case by the officers and staff of the G.T.R. car department, Montreal, on resigning his position as chief clerk in that department. He is also Secretary of the Canadian Ry. Club.

On the occasion of his leaving Toronto to take up his new duties as C.P.R. ticket agent and agent Dominion Ex. Co., at Windsor, Ont., J. Madill was presented with a ring by his fellow-employees in the C.P.R. city ticket office, Toronto.

G. W. Vanderslice, at one time Superintendent Northern Pacific Lines in Manitoba, and recently with the Northern Pacific Ry. Co. at Brainerd, Minn., has been appointed Superintendent Chicago, Rock Island and Pacific Rd., at Trenton, Mo.

Sir Percy Girouard, who has charge of the railway lines in the Transvaal and Orange River Colonies for the British Government, was married at Pretoria, Transvaal, Sept. 10, to the daughter of Sir R. Solomon, Attorney-General of the Colony.

Jay Downer, General Manager, Cape Breton Ry., who had charge of the completion of the line between Point Tupper and St. Peter's, N.S., was presented with an address on the occasion of the opening of the line for passenger traffic, Sept. 15.

T. A. Foque, Superintendent Motive Power, Minneapolis, St. Paul and Sault Ste. Marie Ry., Minneapolis, Minn., read a paper on "The Travelling Engineer and His Work" at the recent convention of Travelling Engineers, held in Chicago, Ill.

Sir Percy Girouard, who has charge of the railway system of the Transvaal and Orange River colonies for the British Government, has been granted six months' leave of absence, and, accompanied by Lady Girouard, sailed from Cape Town for England, Sept. 17.

D. McDonald, Assistant General Manager, Montreal Street Ry. has gone to Paris, France, to close up some business matters in connection with his former position as manager of the electric street railway there. He will return to Montreal early in Nov.

Miss M. M. Stovel, niece of W. R. Callaway, General Passenger Agent, Minneapolis, St. Paul and Sault Ste. Marie Ry., formerly of Winnipeg, but lately Detroit, Mich., was married from her uncle's house, Minneapolis, Minn., Sept. 3, to R. F. McWilliams, Peterboro', Ont.

G. D. Stinson, a G.T.R. train dispatcher, Montreal, who was on duty at the time of a collision between two I.C.R. freight trains, near Ste. Madeleine, on the G.T.R. line, has been suspended. An engineer and a fireman were killed, and at the inquest the jury placed the blame for the accident wholly on the dispatcher.

A. C. Baird, chief clerk to Trainmaster Doyle, G.T.R. and Wabash Rd., at St. Thomas, Ont., was presented with an address, a gold watch, chain and locket by the Wabash employees of the division on his being

appointed to the position of accountant to G. M. Burns, Superintendent, Wabash Rd., Detroit, Mich.

T. H. Armstrong, city engineer of Edmonton, Alta., and heretofore acting for the Canadian Northern Ry. at that point, has been granted two months' leave of absence from his civic duties. It is understood that he will engage in survey work for the Grand Trunk Pacific Ry., and will have charge of the work west of Edmonton.

Mrs. Greenwood, wife of Col. H. S. Greenwood, resident engineer of the Transvaal railway department at Braamfontein, South Africa, died there recently. Mrs. Greenwood was a daughter of Sir H. Joly de Lotbiniere, Lieut.-Governor of B.C., and Col. Greenwood is also a Canadian. Col. Greenwood returned to Canada early in Sept.

F. Walsh, District Superintendent, Bell Telephone Co., Winnipeg, Man., owing to ill-health, has resigned his position, and has been granted a pension of \$2,000 a year by the Company. Mr. Walsh was given a six months' leave of absence about a year ago, which he spent in California, but the benefit resulting has not proved permanent.

T. A. Ronald, Vice-President Dominion Atlantic Ry., recently made a visit of inspection of the line and the company's steamships. On Sept. 5 Mr. and Mrs. Ronald, P. Gifkins, General Manager, and Mrs. Gifkins, and R. L. Campbell, Secretary, on behalf of the company, entertained the employees at a reception and concert at Kentville, N.S.

B. Holman, formerly C.P.R. city ticket agent and agent Dominion Ex. Co., at Windsor, Ont., was acquitted at the Essex Assizes, Sept. 23, on two charges of embezzlement preferred against him by the express company. On Sept. 21, he was arrested on another charge of appropriating \$30 belonging to the express company, and remanded for a week.

J. F. Lee, at one time General Passenger Agent C.P.R., at Chicago, Ill., and recently Traffic Manager White Pass and Yukon Route, has been appointed 2nd Vice-President and General Manager, Valdez, Copper River and Tanana Ry., with office at Seattle, Wash. The railway is at present under construction from Valdez, Alaska, through the Copper River valley.

G. F. Bristol, who has been appointed General Manager of the Duluth, Virginia and Rainy Lake Ry., with headquarters at Virginia, Minn., will be brought into direct contact with Canadian railway officials when his company has completed its line to Koochiching, Minn., opposite to Fort Frances, Ont. A bridge or ferry connection between the D.V. and R.L.Ry. and the Canadian Northern Ry. is contemplated.

W. C. Ely, President International Ry. Co., Buffalo, owning the Niagara Falls Park and River Ry., the steel arch bridge at Niagara Falls and the suspension bridge connecting Queenston, Ont., and Lewiston, N.Y., acted as President of the recent convention of the American Street Ry. Association at Saratoga, N.Y., in the absence of the President through illness.

Miss E. S. Clement, daughter of P. W. Clement, President Bristol Rd., Rutland, Vt., was married, Sept. 9, to W. H. Field, a New York journalist. Special attention was attracted to the wedding because Miss Clement objected to the use of the word "obey" in the ceremony, and finding that the clergyman of the Anglican church, which she attends, would not omit the word from the prescribed service, was married by a Congregational minister at Rutland.

H. Mann, brother of D. D. Mann, of Mackenzie, Mann & Co., was crushed to death by

his track-laying machine, at a point on the Canadian Northern Ry., about 20 miles beyond Erwood, Sask., Sept. 11. The body was removed to Acton, Ont., where the funeral took place from the family residence, Sept. 15. Amongst those who attended the funeral were Lewis Lukes, of Mackenzie, Mann & Co.; D. B. Hanna, 3rd Vice-President Canada Northern Ry. Co.; W. Laidlaw, K.C., solicitor Toronto Ry. Co., and J. A. Macdonald, railway contractor.

Among those present at the recent convention of the American Street Ry. Association at Saratoga, N.Y., were: W. C. Ely, T. E. Mitten, V. H. Ely, J. H. Belser, H. M. Pease, H. E. Yost, representing the International Ry. Co., Buffalo, N.Y., owning the Niagara Falls Park and River Ry.; C. K. Green, W. T. Marlott, representing the Hamilton Electric Light and Cataract Power Co., Hamilton, Ont.; C. E. A. Carr, J. A. Currie, E. R. Carrington, representing the London Street Ry., London, Ont.; T. W. Casey, H. H. Lockwood, W. G. Ross, representing the Montreal Street Ry., Montreal; E. Mackenzie, representing the Toronto Ry. Co., Toronto.

W. P. Hinton, General Freight and Passenger Agent, Canada Atlantic Ry., and President Canadian Freight Association, whose portrait appears on the first page of this issue, was born at Hintonburg, Ont., Aug. 30, 1871, and was educated at Ottawa Collegiate Institute. He entered railway service May, 1887, and was consecutively to Aug., 1891, clerk freight, passenger and car accounts and travelling auditor Canada Atlantic Ry.; Sept., 1891, to Mar., 1898, rate clerk, general freight and passenger departments, same road, and accountant Canada Atlantic Fast Freight line; April, 1898, to June 30, 1901, Assistant General Freight Agent, same road, and Canada Atlantic Transit Co.; June 30, 1901, to Jan. 30, 1903, General Freight Agent, same road; Jan. 30, 1903, to date, General Passenger and Freight Agent, same road.

The following item is going the round of the U.S. daily and weekly press: "The Canadian Pacific carries off the honors for strange names among its officials. Mr. Ham is the road's advertising manager, with headquarters at Montreal, and the city ticket office there is in charge of Mr. Egg. Because of their strange names, the two men became fast friends, and if they chance to be out of town, as they sometimes do, they both report to Mr. Bacon, whose chief clerk is Brown. A few days ago Ham called on Egg at the latter's office. While talking, the telephone rang. He was asked if that was the Canadian Pacific office. Before he answered as to that, he said, 'Who do you want, Ham or Egg?' 'Neither,' was the reply. 'I want the Canadian Pacific ticket office. I don't want any of your old ham or eggs. Central, get that cheap restaurant off this wire.' Both Ham and Egg are now looking for that man."

Canadian Railway Club.—A regular meeting was held in Montreal Sept. 1, and a special meeting in Toronto Sept. 7, at both of which a paper on apprenticeship, by R. Patterson, Master Mechanic G.T.R., Stratford, Ont., was read and discussed. The discussion will be continued at the regular meeting in Montreal Oct. 6, when a paper will also be read on the maintenance of air brakes under freight cars and the method of keeping check of same.

I. McMichael, who has been appointed General Manager of the G.N.W. Telegraph Co., was born in Brantford, Ont., about fifty years ago, and learned telegraphy in his native place. He subsequently entered the service of the Western Union Telegraph Co., and has latterly filled the position of Manager of the Minneapolis and Northwestern districts for that company.

The Vancouver Power Company.

The Vancouver Power Co. is developing a hydro-electro transmission plant which will be capable ultimately of delivering 30,000 horse-power to Vancouver and the surrounding districts. Work was commenced in the early summer of 1902, and while the final completion of the undertaking is yet a matter of a year or more, the generation of power sufficient for immediate requirements will, it is expected, be possible by December of this year. Primarily, the installation of the plant is for the purpose of furnishing light and power for operating the street and inter-urban railways in Vancouver, New Westminster and Burnaby, but the installation has been designed to furnish 30,000 horse-power, for which the hydraulic end of the plant is being developed; the initial installation of machinery being equal to the generation of 9,000 horse-power.

The sources of water supply for power are two very deep glacial lakes, known as Coquitlam and Trout, or Lake Beautiful. The first mentioned lake has an area of 2,300 acres, and it is at an elevation of 32 ft. above the latter, which has an area of 460 acres. Both lakes are surrounded to their outlets by rugged mountains, rising abruptly from the shore lines, and between the two towers a granite range 4,000 ft. above water level. It

is through this range that a tunnel 13,000 ft., or nearly $2\frac{1}{2}$ miles in length, is being driven to connect the two lakes for the purpose of using the stored waters of Coquitlam for the main supply, and Trout lake as a balancing reservoir. Trout lake alone as a source of power is of no value whatever, as the watershed is very limited, and the outlet is practically dry except during the rainy season.

The first plan of development proposed some years ago was to convey the Coquitlam lake water by means of a flume along the steep hillside a distance of about seven miles, placing the power house on Burrard inlet, nearly opposite Port Moody. The soil along the proposed flume route is of glacial silt, and exceptionally subject to landslides, which would make expensive construction, and be subject to serious interruptions which would cripple the service for long periods, no matter what precautions were taken. This scheme was discarded on account of there being no storage at the end of the flume and the heavy cost of depreciation and maintenance, and the unreliability of service. It was then suggested that a tunnel connecting Coquitlam lake with the North Arm be constructed. While such a tunnel would be slightly shorter than the one now under construction, the main objections were that there was no possible means of procuring storage to act as a balancing reservoir, and also that the tunnel

would of necessity be large enough to carry water for the highest peak load. It was then decided to run the tunnel from Coquitlam to Trout lake. Under this plan of development Trout lake acts as a balancing reservoir, and the tunnel required is only large enough for the average instead of the peak load. The depreciation and maintenance on the hydraulic system will be exceedingly low, and the reliability of service to be obtained will make an ideal installation.

Both lakes will be controlled by dams at their outlets, and from the dam at Trout lake steel pipe lines will convey the water under an effective head of 390 ft. to the power station, located just above high tide mark on the shore of the North Arm of Burrard inlet, into which the water wheels will discharge. The dam at the outlet of Coquitlam lake will raise the water 12 ft. above low water level. It will be constructed of rock-filled timber crib, a type which has proven thoroughly successful in many mountainous streams. The materials are provided by nature in ample quantity at the point where they will be used. The dam will be planked and constructed with an apron, extending far enough down stream to prevent any back-cutting action by the water flowing over.

The tunnel is 9 ft. wide by 9 ft. in height, with rounded corners, and is being driven from both ends by compressed air drills. At

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the portals open cuts were carried into the solid rock, and at one end, where the depth of the open cut became inconvenient, a tunnel was driven for a short distance temporarily timbered, and the ground above the roof of the tunnel sloped down through chutes in the roof directly into the car. Before the machine drills and air compressors arrived hand drills were used, and the average progress was 2 ft. per day in each heading, but since the advent of the drilling machinery, this has been increased to 10 ft. per day. A system of electric haulage has been installed to facilitate the rapid and economical removal of the muck. The plant at each end includes a 100 h.p. boiler, 60 k.w. 500 volt generator, and a 4-drill two-stage air compressor, 3 $\frac{3}{4}$ air drills, and an electric locomotive. Ventilation is provided for by a 12-inch galvanised iron pipe, through which the air is exhausted by means of an air jet under 100 lbs. pressure, acting as an injector. This is only put in operation for a few minutes after each blast to remove the smoke, the exhaust from the air drills furnishing all the fresh air necessary at other times.

A concrete dam 350 ft. long on the crest and 50 ft. high is now in course of construction across the outlet from Trout lake, and arrangements have been made for bringing out ten 54-inch pipe lines from the dam, but only three lines will be completed at present. Each steel pipe line will be 1,600 ft. in length, 48 ins. in diameter at the upper end, 44 ins. in the middle section, and 42 ins. at the power station. Close to the power station site on the shore of the North Arm a wharf has been erected, at which steamers and barges from Vancouver may discharge their freight on to the cars of an incline tramway built from the wharf to the tunnel portal at Trout lake. By this means all material for the camp at the tunnel portal and for the dam and pipe lines is delivered rapidly and with the least possible handling. To deliver material to the tunnel camp at the Coquitlam portal is quite a different undertaking, since it can only be reached by waggon road from a station on the C.P.R., 10 miles distant. For the greater part of this distance the road penetrates the dense forests, and in winter can be kept in a passable condition only by constant attention.

The power station will be constructed of granite masonry, and much of the material excavated to obtain a building flat will be used in the walls. The water-wheel equipment will consist of three sets of impulse wheels, each set capable of developing a maximum of 3,000 horse-power at 200 revolutions a minute, under the effective head of 390 ft., and one set consisting of 200 horse-power wheels for driving the exciters at 580 r.p.m. Each of the main units will consist of two overhung wheels, one mounted on each end of the shaft of a 1,500 k.w. engine type rotating field generator. The wheel centres are of the steel disc type, and fitted with cast steel buckets, secured to the wheel rims by turned steel bolts driven in reamed holes. The hubs of the wheel centres are bored out for a press fit on a shaft 12 inches in diameter, and will be pressed on in place at the lower station. Each wheel will be enclosed in a cast-iron housing, and provided with centrifugal discs and pockets, and suitable drain pipes for preventing leakage of water along the shaft.

Probably the most interesting feature of the equipment is the single combination, deflecting and needle regulating nozzle provided for each water wheel, and fitted with a high pressure ball joint, which is leather packed, and rocks on forged steel trunion bolts. The joint permits of effecting regulation by deflecting the nozzle by governor or hand, independent of the control of the needle, thus permitting of load and speed variations, independent of any change of velocity in the pipe lines. The deflecting portion of the nozzle is counterbalanced by hydraulic pressure, so that quick operation can be secured from the

governor on account of the absence of inertia of heavy counterbalanced weights. The taper pipe of the nozzle is provided with the necessary geared connections for hand control of the needle, and will have a tell-tale indicator showing the size of the stream for all positions of the needle.

The shaft of each unit is 13 in. in diameter in the journals, and will be carried in two ring oiling ball and socket bearings. The enclosing shells of the oil compartments are provided with cooling pipes, connected through the pedestal with the main wheel compartments and controlling valves, so that cooling water, after being discharged from the wheels may flow continuously through them to keep the oil cool. For each wheel is provided a 24-in. high pressure gate valve, with roller bearing thrusts. The gates are all furnished with the usual hand wheel, and in addition there is provided a worm gear device which can be connected at will to facilitate the working of the gate when nearly closed. The governing of the water wheel units will be effected by means of three type "E" Lombard governors. This type operates under water pressure, and the water used by them will be first passed through a filter tank located some 200 ft. above the power house.

The two 80 k.w. exciters, with their respective wheels will be mounted on a common bed-plate, with a 120 horse-power induction motor between the two exciters. Each exciter will be provided with a pair of jaw-clutch couplings and shifter rigging, so that either water wheel will drive its exciter and the induction motor at the same time. The motor leads are connected to the main bus bars, and the motor is normally run at synchronous speed, neither giving nor taking electric power. Should the exciter water wheel nozzle become clogged and the speed fall, the motor immediately takes power from the bus bars and drives the exciter until the nozzle is cleared by the attendant, or the other exciter unit started up. The deflecting nozzles of the exciters are arranged for hand regulation for the exterior of the wheel case through worm gearing.

The contract for the entire electrical equipment has been awarded, and includes the apparatus for the generating station and the sub-stations at Vancouver and Burnaby. The three 1,500 k.w. 60 cycle, 2,200 volt alternators for the power station are of the rotating field type, and are arranged for a movement of the external frame in a direction parallel to the shaft, to allow access to the windings. For the control of the apparatus at the power station the switchboard will contain nine panels, one for the induction motor and one for each exciter, three panels for control of the main units, and three for the control of the three sets of 550 kilowatt air-cooled transformers, with their motor blower sets, consisting of 20 horse-power motors and 110 in. Sturtevant fans. The step-up transformers, static interrupters, high potential switches, and lightning arresters will be installed in a separate building located on the hill above and just back of the power house. As the static interrupters contain oil they will be separated from the main room and each other by brick partitions. The machinery for the sub-stations includes the usual transformers, rotary converters, switchboards, etc., for the reception and distribution of transmitted power.

The route of the transmission lines to Vancouver is 16 miles in length, and involves the crossing of a navigable arm of Burrard inlet, with a span of 2,800 ft. On one side two steel towers 140 ft. in height will be erected to support twelve 9-16 inch galvanised plow steel cables with wire centres, but on the opposite side there is high ground, and the cables will be supported on poles. Two independent transmission lines, each consisting of two 3-wire circuits of no. 2 copper, will be

constructed on the same right of way, to a point near Barnett. From here one line will be continued to Vancouver and the other to Burnaby. A transmission line already exists between Burnaby and Vancouver, which will be reconstructed to carry 20,000 volts, the pressure to be used on the new lines, and a new line will be built from Burnaby to New Westminster, thus providing what is in effect a double transmission line over the entire distance between the power station and each of the sub-stations. W. Meredith, of San Francisco, is directing the entire work, assisted by Hermon and Burwell, civil engineers, of Vancouver. R. H. Sperling, Chief Engineer of the B.C. Electric Ry. Co., is supervising the work on behalf of that company, whose shareholders hold the controlling interest in the Vancouver Power Co.

TRANSPORTATION APPOINTMENTS.

Brockville, Westport, and Sault Ste. Marie Ry.—S. Rothwell has been appointed mechanical superintendent, succeeding H. Wilkinson, resigned.

Canadian Northern Ry.—A. Wilcox has been appointed Chief Train Dispatcher at Port Arthur, Ont., vice W. A. Stewart.

Canadian Pacific Ry.—F. W. Forster, hitherto traffic agent of the Elder-Dempster line of steamships, at Bristol, Eng., has been appointed Bristol Traffic Agent, C.P.R. Atlantic Steamship Lines, with office at Canada House, Baldwin st., Bristol. He will report to the European Traffic Manager at London.

L. G. Roblin has been appointed locomotive foreman at London, Ont., succeeding J. Wilkinson, resigned.

Cape Breton Ry.—G. E. Johnson, of New York, is reported to have been appointed General Manager.

Grand Trunk Ry.—H. A. White, heretofore mechanical accountant at Point St. Charles, has been appointed chief clerk to Superintendent Car Department, vice W. H. Rosevear, jr.

E. J. Hilliard has been appointed Traveling Freight Agent for the maritime provinces, with headquarters at Moncton, N.B.

J. W. Higgins, heretofore Assistant Superintendent Eastern Division, is appointed Assistant, 1st, 2nd and 3rd Districts, vice C. S. Cunningham, transferred. Office at Island Pond, Vt.

W. Holmes is appointed Trainmaster 1st and 2nd Districts. He will report to and receive instructions from the Assistant Superintendent. Office at Island Pond, Vt.

H. F. Coyle is appointed Trainmaster, 6th and 7th Districts, vice W. Holmes, transferred. He will report to and receive instructions from the Assistant Superintendent. Office at Belleville, Ont.

L. G. Coleman is appointed Trainmaster, 4th District, vice J. H. Dull, transferred. Office at Montreal.

U. E. Gillen, heretofore Trainmaster at Belleville, Ont., has been appointed Assistant Superintendent, in charge of transportation and station service 5th, 6th, and 7th districts. Office, Belleville, Ont. The position of Trainmaster at Belleville has been abolished.

J. Irwin has been appointed Trainmaster 8th, 9th, and 10th districts, in charge of transportation station and yard service. Office at Lindsay, Ont.

Charles Moore has been appointed chief clerk to G. C. Jones, Superintendent Middle Division, at Toronto, succeeding W. White, promoted.

Yardmaster Farrell, at the Toronto terminals, has been transferred to other duties, and has been succeeded by J. Tobin, heretofore assistant yardmaster.

C. S. Cunningham, heretofore Assistant Superintendent Eastern division, has been appointed Assistant Superintendent 16th dis-

trict (between Toronto and Hamilton), 17th, 18th, and 19th districts, and 20th district (between Harrisburg and Tillsonburg Junction), vice Mr. Costello, transferred. Office, London, Ont.

J. Gillam has been appointed Yardmaster at Woodstock, Ont.

W. E. Costello, heretofore Assistant Superintendent at London, Ont., has been transferred to the western division. Office at Battle Creek, Mich. He will take over the duties formerly performed by Trainmaster McCarthy, who was killed in the recent collision at Durand, Mich.

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Montreal Terminals.—The company is acquiring property in the neighborhood of Montreal West, Cote St. Paul and Turcot, the object being to provide for future extensions of tracks, yards, shunting premises and of a general widened radiation from the Montreal terminus.

Place Viger Yard Extensions.—Negotiations are still in progress with the Montreal city council respecting the application of the company for permission to close certain streets in the vicinity of Place Viger station. At the recent meeting of the special committee it was decided to address a set of questions to the city attorneys respecting the right of the city to alienate the streets. A statement was made during the discussion that the company had purchased 83,905 sq. ft. of land, and asked the city to cede to it 65,202½ sq. ft. by closing up the streets. (July, pg. 245.)

St. Denis Subway.—It is expected that the subway under the C.P.R. tracks at St. Denis st. will be completed early in Nov. The Montreal Street Ry. will lay tracks immediately on completion of the grade. Martineau and Prenoveau are the contractors. The cost of the subway will be about \$60,000, which will be paid one-third each by the C.P.R., the Montreal Street Ry. and the city. (April, pg. 131.)

Guelph to Goderich.—The mayor of Goderich, Ont., was informed that a party of C.P.R. surveyors would reach that town Sept. 25 for the purpose of locating a line between Goderich and Guelph. (See Guelph Junction Ry., pg. 341.)

London Township.—Application was made at the recent sitting of the Railway Committee of the Privy Council for permission to divert the 3rd concession road of London tp., near London, Ont., in order to meet a new bridge to be built at that point.

Webbwood Turn Table.—Owing to the fact that larger and heavier engines have been placed on the runs over the Sault Ste. Marie branch, a new turn table has been put in at Webbwood station, Ont.

Hutton Township Branch.—Press reports state that surveys are being made for a line from Sudbury, Ont., northwesterly to Hutton township. A line to this point, in addition to opening up some good agricultural lands, would reach iron ore deposits near Hutton tp. The distance from Sudbury to Hutton tp. is about 25 miles.

Fort William Power Plant.—Construction has been commenced on an electric power plant at Fort William, Ont. The plant will be utilized mainly for running the elevators.

Winnipeg Subway, Etc.—The formal agreement between the company and the city council relative to the construction of the subway and the erection of a new station and an hotel at Winnipeg, had not been signed up to Sept. 25. The terms of the agreement, however, have been finally approved and the solicitors were expected to have the document ready for signature at the regular meeting of the council Sept. 21. It was announced that a special meeting would be called to pass the formal resolution as soon as the document was ready for signature. The agreement is substantially on the lines of the one adopted earlier in the year, which, however, was not approved when it was presented to the Legislature for ratification, with the exception that the outside damages are to be borne by the city. The damages on the area closed are to be borne by the company, and this area has been enlarged to include the 16 ft. frontage strip on Point Douglas avenue, held by the company for track purposes. In respect of elevating the grade on Point Douglas avenue to King st., and constructing the Main st. subway, hotel, depot and office block, etc., the old agreement is unchanged.

It is also agreed that the city will close down Point Douglas avenue and portions of intersecting streets. The subway will be 11 ft. in depth below the present street level, and the track will be raised 5 ft. above its present level by iron supports. The grade of the raised tracks will be 1 ft. in 20 ft., or 5%. The subway will be 100 ft. wide, with a double track for street cars and a walk for foot passengers. The company is to make an emergency crossing on King st. and a level crossing at Gladstone st., and have the option of exchanging for another subway crossing at any time, the subway to be 66 ft. wide. The company agrees to build a suitable station and offices fronting on Higgins avenue, with an hotel on the corner of Main st. and Higgins avenue, and also to indemnify the city against actions for damages, and to keep the subway clear of water, make provision for sleighs passing safely through the subway, and nothing in the agreement is to interfere with the city's right of assessing or taxing the property. Both the company and the city agree to apply to the Legislature at its next session for an order ratifying the agreement.

Operations will be commenced at once upon such work as can be carried out without the passing of by-laws, and as much as possible done this year, and it is understood that the whole of the work will be completed in the fall of 1904. (Sept., pg. 309.)

Winnipeg Yards.—The Manitoba Construction Co., which has secured the contract for the brick-work for the new shops and roundhouse at this point, is a local company in which T. Kelly is largely interested. Work on the foundations is in progress. The estimated cost of the work covered by the contract is \$250,000. (Aug., pg. 271.)

Spur Lines in Winnipeg.—A spur line 200 ft. in length has been laid from Sutherland st. to the Northern Elevator Co.'s elevator. It is stated that the company had no permission to lay this track, and that it simply put the ties on the road and laid the track. The matter is being looked into by the city solicitors.

The company has given notice of its intention to apply to the Railway Committee of the Privy Council for permission to lay a spur track from Fonseca st., in a southerly direction parallel to Princess st.

Brandon.—Press reports state that it is intended to erect a new freight station at this point, west of Ninth st.

Neepawa Improvements.—The freight shed at Neepawa, Man., has been raised and enlarged, and the stock-yards adjoining, 600 ft. long by 150 ft. wide, are completed.

Pipestone Branch.—Tracklaying is being proceeded with from Regina, Assa., easterly towards Arcola, the present terminal point. Grading is also being pushed from Arcola and tracklaying is expected to be commenced at that end early in Oct. It is expected that tracklaying will be completed on the extension, 113 miles, to permit trains being run through to Regina early in Nov. (Sept., pg. 309.)

Moose Jaw to Swift Current.—A contract has been let to Foley Bros., for the straightening of the track between Moose Jaw and Swift Current, Assa., 112.3 miles. A number of curves will be straightened out and the grades throughout will be reduced. The improvements will necessitate the construction of about 60 miles of new track.

Calgary and Edmonton Ry.—D. McNicoll, General Manager; J. W. Leonard, Assistant General Manager, and E. H. McHenry recently went over the C. and E. Ry., with a view of deciding on the improvements which it would be necessary to make in order to bring the line up to the requirements of the traffic. They also had a conference with the

Strathcona, Alta., Board of Trade in regard to the extension of the line into Edmonton, and the other extensions projected. They also looked over the site of the proposed high-level bridge over the Saskatchewan river, for which three trial lines have been run. (Sept., pg. 309.)

Clanwilliam Improvements.—The trans-continental line near Clanwilliam, about 10 miles west of Revelstoke, B.C., is being diverted, the object being to secure a line clear of snowslides. The estimated cost of the work is about \$90,000, and it is expected that the work will be completed by Dec. 1. J. W. Stewart is the contractor.

New Westminster Lines.—The company has been involved in litigation in connection with the crossing of its tracks near New Westminster by the Vancouver, Westminster, Northern and Yukon Ry., through which company the Great Northern Ry., U.S., will obtain an entrance to Vancouver. The matter has been before the Courts, the Railway Committee of the Privy Council, the Cabinet, and the Governor-in-Council. The V., W., N., and Y. Ry. was given permission to cross the C.P.R. tracks, and pending an appeal against that decision, laid the crossing. This caused the legal proceedings.

New Wharf at Victoria.—Application has been made to the Governor-in-Council for approval of the construction of a wharf at Victoria, B.C. The plans provide for the erection of a wharf 480 ft. west from Menzies st., to navigable water. The plan of construction calls for five piers, each 650 ft. long by 175 ft. wide, with two warehouses on each 50 x 150 ft., and a railway track between. No. 1 pier, on which construction is to be started first, will be at the foot of Thurlow street, and the rest of them between there and Seymour st.

Tourist Hotel at Victoria.—The by-law granting a free site, exemption from taxes and free water for 15 years to the C.P.R., in consideration of its erecting a tourist hotel to have about 300 rooms, was passed by the taxpayers, Sept. 16.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Grading has been completed on the extension from Glenwood, Minn., north to a point in the White Indian reservation in Norman county, and tracklaying has been completed to Alexandria, about 20 miles. (Sept., pg. 309.)

The G.T.R. has opened an office in Victoria, B.C.

The Ontario Wind Engine and Pump Co., Toronto, has received an order for 12 purification plants to be erected at different points on the C.P.R. system.

The tariff committee of the Canadian Freight Agents' Association met at the Secretary's office, Union Station, Toronto, Sept. 15, and arranged fall rates.

The Michigan Central Rd. no. 3 express train recently made the run from St. Thomas to Windsor, Ont., 111 miles in 98 minutes, actual running time.

The Detroit and Toledo Shore Line, owned jointly by the G.T.R. and the Toledo, St. Louis and Western Rd., has entered into an agreement with the Toledo Terminal Belt Line by which an entrance into the Toledo terminals has been secured. The first G.T.R. train entered Toledo Sept. 10.

A resolution providing that advances may be made from the consolidated revenue fund of Canada to the Minister of Railways for the purchase of stores, etc., necessary for the operation of the Government railways, has been approved of by the House of Commons. The amount advanced to the I.C.R. shall not exceed \$1,500,000 a year, and to the Prince Edward Island Ry. shall not exceed \$100,000.

Consolidated Lake Superior Co.

On Sept. 18, notice was given closing the whole of the works carried on by the subsidiary companies of the Consolidated Lake Su-

perior Co. with the exception of the water and light company at Sault Ste. Marie, Ont., the street railway lines on both sides of the river, and the ferry service connecting them, and the running of one train a week on the

Algoma Central and Hudson's Bay Ry. In all some 3,500 men have been thrown out of employment in consequence, the following being those connected with the company's transportation interests: Michipicoten branch

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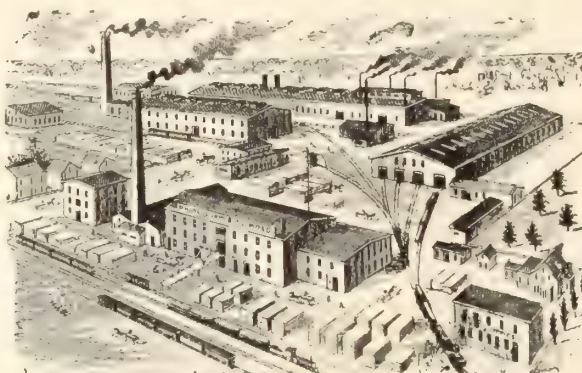
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A. C. and H. B. Ry., 50 men; A. C. and H. B. Ry. car shops, 20 men; Algoma steel plant, 150 men; A. C. and H. B. Ry., about 200 men. The steamers employed by the Algoma Central Transit Co., continued in operation until the men were brought out from the mines and lumber camps, and are being laid up. The reason given for the closing down of operations was that there were no funds in hand to meet the demands of the men for money, and to pay current accounts, and no immediate prospect of obtaining money to meet them. The stoppage of the works is an admission on the part of the management that all the efforts recently put forward to find money to pay off present indebtedness and to provide for the future continuance of the various operations, have failed. The directors give various reasons for this, but there is a general agreement that the present financial depression following the recent fall in industrial securities is accountable for the failure to raise the money. Following the failure to raise the money from the shareholders upon bonds, or in any other way, Speyer & Co., of New York, called up the loan of over \$5,000,000 made in the spring, and due in July, for the payment of which the company pledged the whole of its assets. The property was announced to be sold in New York, Oct. 1.

The Grain Movement from Manitoba.

The total quantity of wheat inspected at Winnipeg for the year ended Aug. 30, 1903, was 51,833,000 bush., against 42,406,923 bush. for the two ports of Duluth and Superior, Minn.; and 37,940,953 for Chicago, Ill. Including oats, the inspection at Winnipeg for the year amounted to 56,117,200 bush., or 55,005 cars. The proportion of wheat from Manitoba was four times that from the territories, and the quantity carried by the C.P.R. was about four times that carried by the Canadian Northern Ry. The inspections on the two railways and the destination of the cars is given below:

On C. P. R.—	Cars.
For Fort William	32,650
For Winnipeg	7,601
For all rail	2,218
For Duluth via G. N. R.	2
For Duluth, via Soo line	269
For Minneapolis, via Soo line ..	291
For Minneapolis, via G. N. R.	40
For Vancouver	202
Total	43,333
On C. N. R.—	Cars.
For Port Arthur	9,755
For Duluth	1,310
For Minneapolis	514
For Seattle	93
Total	11,672

Grain Elevator Notes.

M. Sellers, who has had charge of the C.P.R. elevators at Fort William, Ont., has resigned.

The total capacity of the elevators at the head of the lake and in Manitoba and the Northwest Territories is 39,333,400 bush. There were 175 new elevators erected in the Northwest during the year.

Tenders have been invited by the Merchants Bank of Canada for putting the Prescott, Ont., elevator in repair, with a view to its being again placed in operation. Nothing has been officially reported as to when business is likely to be resumed, or under whose management.

The Canadian Northern Ry. Co. has granted sites for four elevators at Edmonton, Alta., and it is understood that the construction of the elevators will be gone on with this year. The elevators will be erected for the Brackman-Ker Elevator Co., N. Bawlf of Winnipeg, J. West, and John Ross & Co., of Edmonton.

The C.P.R. and the Canadian Northern Ry. Co. have notified the Winnipeg Grain

Exchange that it is intended to increase the present rates for storage of grain in their terminal elevators at the lake front to the following: Elevating, including 15 days' storage and insurance against loss by fire, per bushel, $\frac{3}{4}$ c; storage for each succeeding 30 days and insurance against loss by fire, per bushel, $\frac{3}{4}$ c. No charge for cleaning and storing.

Referring to the capacity of the elevators at Fort William and Port Arthur, Ont., and in Manitoba and the Northwest generally, C. C. Castle, Warehouse Commissioner, is quoted as saying that it was equal to caring for a crop of 150,000,000 bush. There had been many additions made to the loading platforms, the number and capacity of the elevators had been increased, and large additions had been made to the rolling stock by the railway companies. He expected 65% of this year's crop to be moved before the close of navigation.

The annex to the C.P.R. elevator D at Fort William, Ont., has been completed. It provides for the storage of 1,700,000 bush., and is an excellent example of the modern storage house. The basement is of solid concrete, and is a large, light place, in which all the operations of handling which are done in this portion of the annex are in full view all the time. The upper story consists of a huge hall, 120 ft. by 240 ft., with a solid concrete floor, covering the tops of the storage tanks which are of steel, 32 in number, 80 ft. high, and 28 ft. in diameter, and each one containing 41,000 bush. The interstices between these tanks are also used for storing grain, bringing the total capacity to 1,700,000 bush. The building is capable of taking in 40,000 bush. an hour, and shipping 20,000 bush. It fronts upon the navigable waters of the Kaministiquia river, where vessels drawing 19 ft. of water can lie alongside the docks. This addition will bring the total capacity of elevator D to 3,000,000 bush. or over. Press reports state that plans are already under consideration for again doubling this and making it a 6,000,000 bush. house.

The elevator constructed at Point Edward, Ont., by the Point Edward Elevator Co. (Ltd.) was reported to be ready for business Sept. 15. The elevator consists of a working house, power house, 48 ft. by 48 ft., and an annex. The basement is floored with concrete at the water line. The equipment of the working house consists of a marine leg of 12,000 bush. capacity, two sets of unloading shovels, a receiving leg to carry the grain from the marine leg, and two shipping legs to deliver the grain to cars. At the top of the building are three scales of 72,000 lbs. capacity. The bins in this building will contain 75,000 bush. The annex is 30 ft. distant from the working house, back from the river, and separated by the railway track. It is 166x126 ft., and has 36 bins, with a total capacity of 450,000 bush., which, with the bins already mentioned, gives the elevator a total capacity of 525,000 bush. The method of conveying the grain is by means of wide rubber belts. These belts are in channels at each side of the building, between the rows of bins and below, and when the bins are opened the grain runs out on to the belt and is carried along to any desired bin or back to the working house to be weighed before going into the cars. The power house contains a 350 h.p. engine and two boilers 16 ft. x 72 in. There is a conical smoke-stack 177 ft. high, being one foot higher than the elevator.

On Sept. 12 the 50th anniversary of the turning of the first sod of the St. John and Shediac Ry., or as it was also called the European and American Ry., was celebrated at St. John, N.B. This railway is now part of the Intercolonial Ry.

SHIPPING MATTERS.

Notices to Mariners.

The Department of Marine has issued the following notices to Mariners:

No. 70. Aug. 11—New Brunswick—180. Northumberland strait, Kouchibouguac bay, Blackland's gully, range lights established. 181. West coast Miramichi bay, Fox island, northwest point, lights increased in intensity. Newfoundland—182. West coast, Gulls' Marsh, wreck in approach.

No. 71. Aug. 14—Quebec—185. Gulf of St. Lawrence, Magdalen islands, Bird rocks, change in characteristic of light. 186. River St. Lawrence, Saguenay river entrance, Pointe Noire, range lights established. Labrador—187. Strait of Belle Isle, Amour point, change in characteristic of light.

No. 72. Aug. 18—New Brunswick. 188. South coast, Bay of Fundy, St. John Harbor, buoy established. 189. East coast, off Pokemouche gully, buoy established. Prince Edward Island—190. North coast, Cascumpeque harbor entrance, buoy established.

No. 73. Aug. 19—Ontario—191. Lake Huron, south end, Point Edward, range light established.

No. 74—Aug. 19—New Brunswick—195. South coast, Bay of Fundy, Letile passage, Mascabin point, light established.

No. 75—Aug. 20—British Columbia—196. Strait of Georgia, Fraser river mouth, change in color of beacon lights.

No. 76. Aug. 21—Quebec—200. River St. Lawrence below Montreal, Boucherville channel, Ile St. Joseph, range lights established.

No. 77. Aug. 26—Ontario—201. Lake Ontario, Bay of Quinte, Belleville, change in color of light. 202. Lake Huron, Manitoulin island, Providence bay wharf, shoal located and buoyed.

No. 78. Aug. 28—Quebec—206. River St. Lawrence, ship channel between Montreal and Quebec, Lake St. Peter, lightship no. 1, temporarily moved.

No. 79. Aug. 29—Nova Scotia—207. South coast, Grampus rock, buoy established. Prince Edward Island—208. Gulf of St. Lawrence, Souris east breakwater, light increased in intensity.

No. 80. Aug. 31—Ontario—209. Lake Ontario, eastern entrance to Toronto harbor, breakwater dangerous. 210. Lake Superior, Thunder bay, entrance to Fort William, lighted buoy established.

No. 81. Sept. 1—Ontario—211. Lake Huron, east side, Saugeen river, range light masts replaced by towers.

The following notices have been issued by the U.S. hydrographic office:

No. 35. Aug. 29—Lake Superior—1764. Apostle islands, Raspberry island light station, fog signal to be established. 1766. Portage lake ship canals, Lily pond, beacon light to be established. St. Clair river—1767. Russell island, wreck, light exhibited. Lake Ontario—1769. Oswego approach, Ford shoal, buoy to be established.

No. 36. Sept. 5—Lake Superior—1805. Portage lake ship canal, dredged channel, buoys, directions. Lake Huron—1806. St. Clair river, northern approach, information respecting shoal spot. St. Clair river—1807. Russell island shoal, gas buoy established, float light withdrawn. Lake Erie—1808. Conneaut range light, temporary change of position.

No. 37. Sept. 12—Lake St. Clair—1841. Port Huron shoal, buoy established. Lake Ontario—1842. Oswego approach, Ford shoal, buoy established.

The tug Reliance, owned by the Midland Towing and Wrecking Co., Midland, Ont., was burned to the water's edge, near John's Island, Georgian Bay, Sept. 18. The Reliance was built at Collingwood, 1892.

Maritime Provinces and Newfoundland.

The Nova Scotia schooner *Encore* has been destroyed by fire at Chateau Harbor, Nfld.

At the last session of the Newfoundland Assembly there was voted \$4,000 as bonuses on vessels built in the island.

A 2-000 ton steel steamer, *Pontiac*, has been launched in Scotland for J. W. Carmichael, of New Glasgow, N.S.

The Newfoundland Assembly at its last session voted \$55,925 for the maintenance and repair of lighthouses, etc., on its coast.

The tug *John Greene*, built at St. John's, Nfld., for the Messrs. Rendell, of that port, has been completed and given a trial trip by her owners.

The Boston schooner *Altama* was sold at Boston, Mass., recently to Nova Scotia owners, to satisfy a claim for salvage brought by the Dominion Atlantic Co.

The Cape Breton Coal, Iron and Ry. Co. are preparing to erect a large pier, etc., at Louisbourg, N.S., with a view of making that port its shipping point.

Some Charlottetown, P.E.I., people have been negotiating with the North American Transportation Co. (Ltd.) for the purchase of the str. *City of London*.

The str. *Strathcona*, built at Port Clyde, N.S., for the Halifax and Canso Steamship Co., has been placed on a run between Halifax and Guysboro, calling at various ports en route.

The St. John, N.B., city council at a special meeting Sept. 15, ratified the agreement with the Imperial Dry Dock Co. for the construction of a dry dock at that port at a cost of \$1,000,000.

The str. *Westport III.* was placed on the run from Westport to St. John, N.B., Sept. 1. She was built at Shelburne, N.S., and engined at Yarmouth, N.S., and is owned by the Insular Steamship Co. of Westport, N.S.

There is a considerable scarcity of small tonnage in Nova Scotia at present. One coal company has been enquiring for about 20 vessels of small and medium tonnage, and found considerable difficulty in obtaining them.

The Newfoundland Government has decided to place two lighthouses on the Labrador coast in the spring, and to construct three

additional lighthouses and a number of fog signal stations on the coast of Newfoundland.

The court appointed to enquire into the circumstances attending the recent stranding of the *Plant Line* str. *Halifax* in Halifax harbor, found that the master did not allow for currents in coming into the harbor in a fog. Capt. Ellis was admonished by the court.

Among the vessels launched or under construction at Shelburne, N.S., are the following: *Monica A. Thomas*, schooner, for Capt. H. Thomas; a 63 ft. steamer for R. Simpson & Co., Halifax; a 75 ton schooner for Newfoundland owners; and an 84 ft. steamer for the Newburrell Johnson Iron Co., Yarmouth, N.S.

G. Robertson, M.P.P., St. John, N.B., has submitted to the Dominion Government the completed plans for the building of a dry dock in St. John, N.B. Should the government approve of the scheme, a subsidy will be granted. The agreements with the New Brunswick Legislature and the city of St. John are ready, and the financial aspect is now receiving the attention of the Imperial Dry Dock Company, which hopes to be in a position to ask for tenders in November. The new dock will be 700 feet long and 140 feet wide at the top. It will be a composite one, with entrances of solid granite of a substantial character.

Province of Quebec Shipping.

The Dominion Government is re-establishing a lighthouse at Pointe Noire on the Saguenay river, and will add other aids to navigation.

The Montreal Harbor Commission has received the balance of the loan from the Dominion Government for the construction of the new elevator.

The Montreal Harbor Commissioners have accepted the tender of the *Pontbriand* Co., of Sorel, for the construction of a harbor tug, at a cost of \$30,300. Delivery is to be made in June, 1904.

The Montreal Harbor Commission has notified the Montreal Grain Elevating Co. that it must remove the wreck of its floating elevator which recently sunk in the harbor. The wreck is a menace to navigation.

La Compagnie Maritime et Commerciale du bas St. Laurent has been incorporated under

the Quebec Companies' Act, with a capital of \$40,000 and offices at Ellis Bay, Anticosti island, to carry on a general navigation business, etc.

The coroner's jury at the inquest on the only body recovered from the *Mersey*, recently sunk in the St. Lawrence, returned a verdict which resulted in the arrest of Capt. Gagnon and chief officer Barras on a charge of manslaughter.

The Great Lakes and St. Lawrence Transportation Co., better known as the *Wolvin* Syndicate, of Quebec, has seven of its lake grain carriers in operation to Quebec, and will have five more in operation when the new wheat is ready for transport.

The number of ocean-going vessels arriving in Montreal for the season of navigation

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MONTREAL TO LIVERPOOL
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MONTREAL TO LIVERPOOL
Canada June 13th July 18th August 22nd
Kensington " 20th " 25th " 29th
Dominion " 27th Aug. 1st Sept. 5th
Southwark July 4th " 8th " 12th

BOSTON TO LIVERPOOL
Commonwealth July 2nd July 30th August 27th
New England " 9th Aug. 6th Sept. 3rd
Mayflower " 16th " 13th " 10th
Columbus " 23rd " 20th " 17th

BOSTON TO MEDITERRANEAN
Vancouver June 6th July 18th August 20th
Cambrian " 20th Aug. 8th Sept. 10th

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to Aug. 31, was 511, having a tonnage of 1,196,219, against 485 vessels of 962,217 tons in 1902. Of inland vessels there arrived within the same period 6,560 vessels, having a tonnage of 1,460,437, against 5,479 vessels having a tonnage of 1,144,720 in 1902.

The Minister of Marine recently informed a deputation from Quebec that a thorough investigation will be made into the pilotage system on the St. Lawrence, and steps taken to put it on a more satisfactory basis. The ship owners ask for a dissolution of the present pilots' corporations, and the placing of the whole system under direct Government control.

The steam tug Mersey, owned by M. Connolly & Co., contractors, sank near Point Outard, recently, while on a trip from Quebec to Seven Islands Bay, five men being drowned. As a result of the investigation the certificate of Capt. Gagnon has been cancelled; Chief Officer Barras and Engineer Lamothe censured, and the court recommended that the Minister of Marine deal with the chief officer's certificate.

The Revillon Canada Far North Co. (Ltd.) has been incorporated under the Dominion Companies' Act, to own and operate freight and passenger vessels in Canada and elsewhere. The capital is fixed at \$250,000, and the offices are to be in Montreal. The company acquires the business of Revillon Bros., of Paris, France, including the trading posts in Canada, and the steamers Mary and Stord, now owned in London, Eng. The Stord recently arrived in Canada and got ashore in the St. Lawrence.

The Richelieu and Ontario Navigation Co.'s str. Carolina ran on the rocks at Passe a Pierre, Saguenay river, recently, and her 300 passengers had a narrow escape of drowning. The steamer lies at an angle of 45 degrees, half her length being on the rocks, and her stern is under water. Tugs failed to tow her off, and other attempts to float her failed. The fixings and furnishings have been removed, and it is feared that the hull may have to be abandoned. The steamer, which was valued at \$65,000, was purchased in the U.S. in 1902.

The improvements at the Lachine canal locks at Montreal, now in progress, will cost about \$250,000. The preliminary work was confined to the upper basin and the bridge foundations. But since May the work has been extended to reconstructing the locks, and on Sept. 1 more than one-half of the lower lock was completed. A feature of the work is that the lower walls and foundations are being constructed of concrete and laid in sections of 30 to 40 ft. at a time. The new walls are about 34 ft. high, the lower half being of solid concrete, while the upper portion is of concrete backing with a facing of large stones.

The hull of the steamer Montreal, which was built by the Bertram Engine Works Co., of Toronto, is to be utilized. The steamer's hull was built at Toronto and brought to Montreal through the rapids in 1902. She was taken to Sorel for completion, but owing to the difficulty of obtaining the necessary labor was brought to Montreal. While firmly embedded in the ice in March, she caught fire and the whole of the steamer above the water line was burnt, nothing except the hull and engines being left. These, it was thought, were too much damaged to be of any use, and were sold. The Richelieu & Ontario Navigation Company, for whom the boat had been built, acquired the remains of the vessel and now intend to rebuild her. She has been taken to Quebec and placed in the dry dock where she is being carefully overhauled, after which she will again be taken to the company's shops and completed. It is anticipated that she will be ready to sail some time next season.

Ontario and the Great Lakes.

R. Morrill, Parry Sound, is building a 50 ft. tug boat for the Thompson Lumber Co., Longford.

The str. Island Queen, of Montreal, sprang a leak at Portsmouth, Ont., recently and sank at her wharf.

Capt. M. Leroux, master of the str. City of Toronto, died in Parry Sound hospital Sept. 2, after a short illness.

The str. Empire State, recently burned at Kingston, will not be rebuilt. The amount of insurance paid was \$17,500.

The str. Garden City recently made the run from Toronto to Port Dalhousie in 2 h. 2 m. 2½ secs., the best on record.

The str. Alexander Fraser, owned by the Upper Ottawa Improvement Co., struck a rock near Pembroke, Ont., recently and sank.

The Chatham Board of Trade proposes to subsidize a steam barge to operate on a route from Chatham to Sault Ste. Marie and north shore points.

The Dominion Government proposes placing a new lifeboat on Lake Erie at Port Stanley. The present lifeboat has been in service for about 20 years.

A steam yacht, owned by C. F. Bunnell, of Rat Portage, and his boathouse on the Lake of the Woods, have been burned. The loss is estimated at over \$10,000.

The Northwest Transportation Co.'s str. Huronic has been fined \$1,800 by the U.S. Customs authorities for carrying passengers from Sault Ste. Marie, Mich., to Duluth.

It is reported at Sault Ste. Marie, Ont., that the C.P.R. steamers will call at the docks there next season, instead of at the docks on the U.S. side of the river as at present.

The act incorporating the Canadian Transportation and Storage Co. (Ltd.), has been amended in the Senate by the insertion of a clause limiting the operations of the company to Ontario.

The Canadian North-West Steamship Co. (Ltd.), a Dominion company, has been registered in Ontario as an extra-provincial company, G. T. Marks, of Port Arthur, Ont., being its attorney.

Capt. A. Campbell, of the str. Majestic, was presented with a gold locket by the members of the Western Canadian Press Association, who were passengers on the steamer on their recent trip east.

The str. Joe Milton, of Wiarton, ran ashore on the White Shingle shoal near Tobermory, recently. The crew and passengers were saved, and the steamer was subsequently got off without material damage.

Midland, Ont., has been declared to be a port for the registration and classification of ships under the provisions of sec. 4 of the Imperial Merchant Shipping Act, and the Canadian acts amending the same.

The Dominion Government has purchased the str. Valeria from H. S. Folger, Kingston, Ont., for use as a patrol boat on the St. Lawrence to see that buoys and other aids to navigation are in their proper positions.

The G.T.R. officials state that the Company does not propose to establish a line of steamers of its own between Goderich and U.S. ports, but will enter into traffic agreements with steamship lines from Chicago and upper lake ports.

The Dominion Fish Co.'s str. Hiram Dixon engaged in carrying freight and passengers from Owen Sound and Wiarton to Sault Ste.

Marie and other ports, was burned to the water's edge recently at Michipicoten. She was insured for \$16,000.

The str. Erin, with railway iron from Montreal to Fort William, went ashore at Farran's Point, but was got off with but slight damage; she went ashore again near Kingston, and was so badly damaged that she had to discharge her cargo and go on dry-dock for repairs.

The Farrar Transportation Co. of Collingwood, Ont., has purchased the str. New mount, built in Great Britain, and will put her on a route from Fort William to Kingston. Her dimension are: length, 254 ft.; breadth, 42 ft.; depth, 23 ft. Her tonnage is 3,400 gross, but she will carry 2,000 tons on a 14 ft. draught.

The Thunder Bay Harbor Improvement Company (Ltd.) has been incorporated under the Ontario Companies' Act, with a capital of \$50,000, to construct wharves, etc., and to carry on a general navigation business at Port Arthur, Ont. The incorporators are: R. and W. Vigars, Jas. and G. F. Whalen, W. F. Langworthy, all of Port Arthur.

The Ontario court of appeal has allowed the appeal of the Dominion Elevator Co. against the decision of Justice MacMahon giving the Midland Navigation Co. damages for not supplying a cargo of grain at Fort William to the steamer Midland Queen, and has given judgment for the Elevator Co. for \$50 and costs for breach of agreement in not carrying the cargo.

The Lake Ontario Steamship Co. has been incorporated under the Ontario Companies' Act, with a capital of \$150,000, to carry on a general navigation business. The head offices are in Hamilton, and the directors are: G. Hope, W. C. Hawkins, C. A. Birge, J. Moodie and J. I. Davidson. This is the company which proposes to operate a turbine steamer between Toronto and Hamilton, capable of making the round trip in three hours.

The tug which is being built at Collingwood for the Montreal Transportation Co. will be of steel, and will be fitted with a complete electric light plant and all modern improvements. The engines will be of the triple expansion type, the cylinders being 15 in., 25½ in. and 43 in., and the stroke 36 in. Steam will be supplied by two Scotch boilers 11 feet 6 in. in length and 11 feet in diameter, carrying a pressure of 185 pounds to the square inch. The tug, it is expected, will be launched early in Oct.

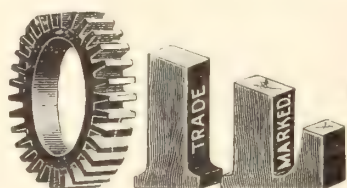
The total freight passing through the Canadian and the U.S. canals at Sault Ste. Marie, in July, was 5,403,808 tons, against 5,070,496 tons in July, 1902. The figures for the Canadian canal are:

	1903.	1902.	Increase or Decrease.
April	159,763 tons	190,926 tons	31,163 tons —
May	636,747 "	314,262 "	322,485 " +
June	917,105 "	1,118,564 "	201,459 " —
July	800,338 "	523,936 "	276,402 " +
Aug.	879,420 "	659,858 "	219,562 " +
	3,483,373 tons	2,807,546 tons	675,827 tons +

+ increase. — decrease.

Arrangements have been made by the Grand Trunk Ry. to inaugurate a car ferry service from Grand Haven to Milwaukee, Wis. The ferry-boat Grand Haven, a new vessel launched at the Craig shipyards, will be put into service, in addition to two other boats, and it is expected to put two more large boats into service within a year. It is stated that the Grand Trunk was induced to this move by the experience of the Ann Arbor and the Pere Marquette roads, which found that cars could be ferried over Lake Michigan quicker and cheaper than they could be switched through Chicago.—Railway and Engineering Review.

The Canada Atlantic Ry. Co. proposes establishing a line of passenger steamers between Depot Harbor, Ont., and Chicago and Duluth, in connection with its present line of freight steamers. E. J. Chamberlain, General Manager, recently said in reference to the proposal: "We have difficulty in keeping people off our grain boats now. At Chicago and other cities they come down to our docks and dump their trunks, under the impression that we operate passenger steamers. We will not take action in the matter immediately, but as soon as the financial arrangements are perfected and the road can get the money, the project will be seriously considered."



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Vacuum Oils Reduce Friction, thus saving Coal and preserving Machinery.

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ELDORADO ENGINE
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ARCTIC CUP GREASE
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300 Fire Test, for Illuminating Purposes

THE **QUEEN CITY OIL CO., LIMITED**
SAML. ROGERS PRES. TORONTO

The Midland King, the latest addition to the Midland Navigation Co.'s fleet, is fitted with triple expansion engines having cylinders 20 in., 33½ in. and 54 in., by a 40 in. stroke. The two boilers are of Scotch pattern, 14 ft. by 12 ft. The working pressure is 180 pounds, and they will be capable of developing 1,500 horse-power. The steamer is also supplied with a complete up-to-date lighting plant and for the handling of freight, and is fitted with three cranes at as many hatches, the object being to permit of unloading and loading concurrently. On the forward maindeck, besides the officers' quarters, is a suite of rooms comprising a parlor,

two staterooms and a bathroom, all finished in quartered oak.

The str. Pittsburg, better known as the Carmona, belonging to the Georgian Bay Navigation Co., was burned to the water's edge at Sandwich recently. The steamer, which was valued at \$60,000, is a total loss, and it is reported that the underwriters in London, Eng., where she was insured for £10,000, will hold an investigation. The steamer was built at Port Robinson in 1871, and sailed the lakes for a number of years as the Manitoba. Then her name was changed to Carmona, and she was brought to the upper lakes; for a couple of seasons plied out

5 King Street East

FURS and HATS

SPRING HATS ALL IN.
EVERYTHING UP-TO-DATE.

In Ladies' Ready-to-Wear we are showing a select stock. Prices reasonable.

Ladies, now is the time to have your Furs repaired and remodelled. Fur Show Rooms open at all seasons.

Catalogue and Price List sent on application.

Holt, Renfrew & Co.
TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1902, gives the following statistics for the year:

CROPS.		
ACRES.	AVERAGE YIELD.	TOTAL.
Wheat.....2,039,940	26. bus.	53,077,267 bus.
Oats.....725,060	47.5 "	34,478,160 "
Barley....329,790	35.9 "	11,848,422 "
Potatoes...22,005	157. "	3,459,325 "

STOCK.

Number of stock in the Province, July 1, 1902:
Horses.....146,591 Sheep.....20,518
Cattle.....282,343 Pigs.....95,598
Value of Dairy Products.....\$926,314

15,000 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1902—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,000,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

For full information, maps, etc., FREE, address JAMES HARTNEY, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.
Or J. J. GOLDEN, Manitoba Emigration Agt., 617 Main St., Winnipeg, Man.



LOW COLONIST RATES

TO NORTH-WEST
AND CALIFORNIA

Especially Low Rates Homeseekers'
Excursions, Sept. 15th, Oct. 20th

To all points in Louisiana and Mississippi, \$16.00 from Chicago.

To all Texas points on the Southern Pac. Ry. at proportionate rates.

The Local Agent is asked to note Cheap Rates to all the North-West, also to California from Sept. 15 to Nov. 30, nearly \$20 less than regular second-class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. July folder is a good one. Get it!

G. B. WYLLIE,

Canadian Passenger Agent,

210 ELLICOTT SQUARE, BUFFALO, N.Y.

RICHELIEU AND ONTARIO NAVIGATION COMPANY.

"Niagara to the Sea."

MAIL LINE STEAMERS

(Palatial Steel Steamers)

Leave Toronto (from June 1st to 13th) Mondays, Wednesdays and Saturdays; thereafter daily, except Sunday, for Rochester, Kingston, Clayton, 1,000 Island Points and intermediate ports (running all the Rapids) to Montreal, where connection is made with steamers for Quebec, Murray Bay, Tadoussac and points on the famous Saguenay River.

HAMILTON LINE

(Fine Iron Steamers)

Plying between Hamilton, Toronto, Montreal and intermediate ports, passing through the picturesque scenery of the Bay of Quinte, 1,000 Islands and shooting the Rapids.

Service: Tri-weekly, Tuesday, Thursday and Saturday from Hamilton and Toronto. Monday, Wednesday and Friday from Montreal.

For further particulars apply to

H. FOSTER CHAFFEE, W.P.A.,
2 King Street E., Toronto.
JOS. F. DOLAN, C.P. & T.A.,
128 St. James Street, Montreal;
or,
THOS. HENRY, Traffic Manager,
Montreal.

NEW YORK CENTRAL

& HUDSON RIVER R. R.

THE FOUR-TRACK TRUNK LINE.

In connection with the C.P.R., T.H. & B. and M.C. Railroads operate the quickest and best trains between Toronto, Hamilton and New York.

Day Train leaves Toronto 9.45 a.m., Hamilton 10.45 a.m., connects with the

"EMPIRE STATE EXPRESS"

Arrives New York 10 p.m.

Night Train with sleeping car and dining car leaves Toronto 5.20 p.m., Hamilton 6.20 p.m., arrives New York 7.50 next morning.

ONLY ONE

station in the City of New York, the Grand Central Station of the New York Central.

Connections at Lewiston with the Niagara River Line, and at Suspension Bridge with the Grand Trunk Railway.

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Canadian Passenger Agent, 69½ Yonge Street, TORONTO, ONT.

of Owen Sound to Sault Ste. Marie in connection with the C.P.R. Later she was taken to Lake Ontario and ran out of Toronto. Finally she was bought by W. J. Brown, of Detroit, Mich., and placed in the excursion business between Toledo, Detroit and Sault Ste. Marie. The first year the venture proved very profitable, and the steamer was brought to Collingwood in 1900, lengthened and practically rebuilt at a cost of between \$25,000 and \$30,000. In 1901 the venture was not so profitable, and last spring she was sold at marshal's sale, bid in by the Detroit Savings Bank, and turned over to the Georgian Bay Navigation Co. for operation.

Manitoba and Northwest Territories.

The str. Josie, belonging to Capt. Deacon, Prince Albert, Sask., is undergoing a thorough overhaul.

H. H. Ross, of Medicine Hat, Assa., has contracted to build two steamers for navigation on the Saskatchewan river between Medicine Hat and Prince Albert, Sask. He built one steamer this season, which was despatched to Prince Albert.

The str. Pathfinder was launched at Prince Albert, Sask., recently by Capt. Deacon. The dimensions of the new steamer are: length, 70 ft.; breadth, 12 ft.; draught, 9 inches. For some time the Pathfinder will be utilized as a tow boat, but will eventually be used for excursion traffic and a general carrying trade on the river.

Capt. F. W. Coates and R. J. Mosher, hitherto associated with the Rainy River Navigation Co., Rat Portage, Ont., have organized a company to operate a line of steamers between Prince Albert, Sask., and Edmonton, Alta. The company will build the hull of a steamer at Prince Albert during the winter and will have the engines constructed at Toronto.

Capt. G. Phillips, of Rat Portage, Ont., Dominion Government steamboat inspector for Western Ontario, Manitoba and the Northwest Territories, has just returned to Edmonton, Alta., after a trip of inspection of the vessels on the Mackenzie river, Peace river and other adjoining waters. He travelled over 5,000 miles and inspected the 12 steamers and other vessels used in navigating these waters.

A new steamer named The Prospector has been launched at Edmonton, Alta., for Twiss Bros. The Prospector is a stern-wheel, wooden steamer, having the following dimensions: length, 70 ft.; breadth, 12 ft.; depth, 4 ft. The wheel is 8 ft. wide and 9 ft. 6 in. diameter, and is driven by a 32-h.p. engine. With 10 tons of coal on board the steamer will have a draught of 12 in., which will be increased one inch for each additional ton. The steamer will provide for a number of passengers, for whose accommodation there is a sitting room 16 ft. by 12 ft.

B.C. and Pacific Coast Shipping.

The Puget Sound Navigation Co. proposes having built a new steamer, 250 ft. long, to run between Victoria and Puget Sound ports.

The Pacific Coast Steamship Co.'s str. Ramona ran into the str. New England at Vancouver, Sept. 2, doing damage to the extent of several thousand dollars.

A number of boats and barges are being built at Victoria for the Pacific Cable Board's cable str. Iris; for use in connection with the cable repair work at Bamfield Creek and Fanning Island.

The steamers of the Dollar Steamship Co., of Victoria, are to be placed on a regular route from Puget Sound ports to Hong Kong, Shanghai and other Oriental ports, returning via San Francisco.

Press reports to the effect that the C.P.R. str. Princess Victoria will extend her run so as to include Tacoma, Wash., are denied by the officials at Vancouver. The steamer will continue on the Vancouver-Victoria run and will, as soon as trade warrants, make two trips a day each way.

The Pacific Coast Steamship Co. is reported to be negotiating with the C.P.R. for the purchase of the str. Charnier, now running between Vancouver and Victoria. If the purchase is made it is proposed to place her and the Ramona on a run between Vancouver and Seattle, Wash., giving a daily service.

Press reports from Seattle, Wash., state that the C.P.R. has in contemplation the starting of a line of steamers to run from Vancouver to San Francisco, calling at Victoria, and that the Princess Victoria will be the pioneer steamer. The Princess Victoria is now on the Vancouver-Victoria run.

The str. Princess Beatrice for the C.P.R. Pacific coast service, was launched at Esquimalt, B.C., Sept. 9. The Princess Beatrice is the largest steamer ever constructed in a B.C. yard, her dimensions being: length, 212 ft.; breadth, 36 ft.; depth, 25 ft.; tonnage, — gross, 1,500 tons, net, 900 tons. The hull is of wood, and she is to be fitted with two smoke stacks and one pole mast. Her engines are of the triple expansion type, and are expected to develop 4,000 h.p. She will be fitted to carry 100 first-class passengers and a large number of intermediate passengers, and 700 tons of cargo. The Princess Beatrice is intended for the run between Vancouver and Alaskan ports.

The initial trip of the C.P.R. str. Princess Victoria, from Victoria to Vancouver, was made recently, the time occupied being 3 h. 48 min., beating the previous record of 4 h. 1 m., held by the Moana, of the Canadian-Australian line. The C.P.R. entertained a company of representative men on board for the trip, and after luncheon Capt. Troup gave some particulars regarding the history of the company's connection with the route. He said in 1892 the C.P.R. had tried to build, and did build, a steamer for the people of Victoria for service with Vancouver. Then the company received a round robin from the merchants of Victoria threatening dire consequences if the steamer was placed on the route, and yet the people of Victoria wondered why the C.P.R. had not been kinder to them. After that experience Sir Wm. Van Horne, the then President, would have nothing further to do with a service to Victoria. Then, in 1898, the company decided to put a car ferry service on between the mainland and Victoria, but the fact that the principal shareholders of the C.P.N. Co. being Victoria people, the company refrained from doing so. Then in 1901 the C.P.R. acquired the C.P.N. stock *holus bolus*. Then Sir Thos. Shaughnessy decided that the service between Victoria and Vancouver was not sufficient, and the present steamer was decided upon. The steamer, so far as her internal fittings and decorations are concerned, is not completed, but so much has been done, that ample accommodation will be provided for the regular traffic. The work of completing the decorations will be carried on as quickly as possible, the steamer meanwhile keeping up the regular daily service.

The C.P.R. has arranged to operate a line of steamers between St. John, N.B., and Antwerp, the first sailings to be early in Dec.

The Allan Line is having built in Belfast a new steamer, to be ready in Aug., 1904. She will be a seventeen knot steamer, 12,000 tons gross, and have accommodation for 250 saloon, 250 second cabin, and 1,000 steerage passengers.

The high cost of repairs to vessels in Canada is given as the reason for the removal, after temporary repairs had been made, of the str. Manchester Trader to Great Britain, for complete repairs. The Manchester Trader had been ashore near Quebec.

One of the steamship companies in which Sir Chris. Furness is interested is reported to be considering the possibilities of establishing a line of steamers to Hudson's Bay. The company, it is reported, would utilize on the new line steamers that are out of date on its Atlantic lines.

The Lacoste ship brake was given a test at Montreal Sept. 10, for the benefit of the officers of the British and French men-of-war in port. The test was a successful one, and the two Admirals stated that the invention would be brought before the notice of their respective governments.

The C.P.R. str. Empress of India, on a recent trip to Hong Kong, ran down and sunk a Chinese cruiser. The C.P.R. liner, which was somewhat damaged by the collision, rescued 170 of the crew of the warship. It was estimated that the repairs to the Empress of India would cost over \$20,000.

A subsidy of \$133,333.33 a year for 10 years has been voted by the Dominion Parliament to establish a regular steamship service between Canada and France. It is proposed to make 24 round trips a year, and that four steamers, each of 4,000 tons capacity, will be put on the route. The service will be commenced April 1, 1904.

A press report from Liverpool, Eng., states that the White Star, Dominion and American Lines, controlled by the International Mercantile Marine Co., will shortly cease to be operated as independent lines. The amalgamation will be under the White Star flag. The American line runs its steamers from New York into Southampton, and the other two have their British terminal at Liverpool, operating from New York, Boston, and Montreal and Halifax.

The committee of Lloyd's Register of Shipping has issued its new rules for the building and classification of steel, wood and composite yachts. To aid them in revising the rules the committee invited suggestions from yacht builders in Canada and the U.S., as well as from Great Britain, etc. A new scantling basis has been adopted for all types of yachts in which the length of the bilge diagonally has been introduced, in order to insure that the finer yachts shall have a smaller scantling than those of the fuller form. Not only has the basis of the yacht rules been modified, but considerable additions and extensions have been made both in regard to the details of requirements as well as in the tables for the various descriptions. For survey and classification of yachts the society's surveyors number 300, and are stationed at the principal ports in England and abroad.

Among the Express Companies.

A. K. Cox has been appointed agent Western Ex. Co. at Houghton, Mich., succeeding W. D. McIntosh, promoted.

H. Sanford, vice-President of the Adam's Express Co., died at Bridgeport, Conn., on Sept. 6, from the effects of a stroke of apoplexy which he suffered while at his summer home at Newcastle, Ont.

W. D. McIntosh, heretofore agent Western Ex. Co. at Houghton, Mich., has been appointed route agent in charge of offices on Duluth, South Shore and Atlantic Ry., and on the Minneapolis, St. Paul and Sault Ste. Marie Ry., east of St. Paul, Minn., succeeding T. E. Foard, who resumes the agency at Sault Ste. Marie, Mich. Office, Marquette, Mich.

Speaking of the B.C. Ex. Co., the Express Gazette says, the present company was established in 1864 and from that date to 1871 was known as "Barnard's Cariboo Express." The headquarters for the stages from 1871 to 1884 were at Yale, at that time the head of navigation on the Fraser river for steamers from Victoria. Reconstruction of a bridge across the Thompson river at Ashcroft being completed in 1886, it was selected as a desirable point for stage headquarters. In 1871 the name was changed to the "British Columbia Express Company." It is probably the oldest and longest stage line in operation on the continent of North America. The entire distance of the road is 287½ miles, or 575 miles for the round trip from Ashcroft to Barkerville and back. The stage line requires 80 head of horses to operate it, and 50 rigs; seven or eight drivers are required to meet the traffic demands. The record time on the trip was made a year or two ago by a mem-

ber of the Provincial Government then in power, who, with special stages and drivers, made the round trip and back in 74 hours actual travelling. In this time 575 miles were covered, and the record has never yet been beaten. The company runs a number of branch stage lines also, such as the Lillooet, Ashcroft Road, the Dog Creek, and other lines upon which a regular stage line is operated. Only H.M. mails, passengers and express freight are carried by the B.C. Express Company.

Telegraph and Cable Matters.

The Commercial Cable Co. has declared a quarterly dividend of 2%, payable in New York Oct. 1.

The cost of operating the British telegraph service for 1902-3 was £4,317,371. This was £593,506 more than the receipts. If interest

on the £10,867,644 spent in acquiring the service was added, the deficit would be £892,365.

The number of telegraph offices in Canada on Aug. 1 was stated to be 2,608, distributed as follows: British Columbia, 109; Manitoba, 167; New Brunswick, 129; Northwest Territories, 112; Nova Scotia, 184; Ontario, 1,211; Quebec, 696.

A cable 3,000 ft. in length has been laid between Brier Island and Westport, N.S., and gives telegraphic and telephonic connection between the island and the mainland. The shore connection is maintained over the Westport and Digby telephone line.

The Western Union Telegraph Co. proposes to operate a district messenger service in connection with its lines, and free call boxes will be fitted up in offices, etc. The service will be put in operation in connection with the company's office at Halifax, N.S.

MADE IN CANADA

Mica Fire-Proof Coverings

— FOR —

Boilers, Flues, Furnaces, Heaters, Steam and Hot and Cold Water Pipes.

COLD STORAGE INSULATION
The Highest Non-Conductor in the World.

AWARDED THE GOLD MEDAL AT PAN-AMERICAN EXPOSITION, AND GRAND PRIZE AT PARIS

MICA COVERING, is a Canadian invention, and a purely Canadian industry, as all the mica is procured from Canadian mines, and the material used in the manufacture of the Covering is made in Canada.

Send for particulars to the

Mica Boiler Covering Co., Limited

86-92 Ann Street, Montreal, Can.

The Direct Line

To New York, Philadelphia, Atlantic City, Baltimore, Washington and the South. The Grand Trunk Railway in connection with the

LEHIGH VALLEY RAILROAD

Forms the Direct Line from Toronto, Hamilton, London and all points in Canada for the above cities.

ROUTE OF THE

"Black Diamond Express"

(Handsomest train in the world)

The Great double-track scenic highway, stone ballasted, protected by automatic electric block signals, Through Pullman Parlor and Sleeping Car Service, Dining Car Service à la carte. Everything first class. Call on Grand Trunk Ticket Agents for tickets and further information, or address

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Asst Gen. Pass. Ag't, New York. Gen. Pass. Ag't, New York.

G. R. CHESBROUGH,

West n Pass. Ag't, Buffalo, N. Y.

When You Stop to Think

How much the success of your business and the comfort of your household depend on communication with others, you will appreciate the fact that telephone service is worth a great deal more than it costs.

METALLIC CIRCUIT SERVICE
EFFICIENT, RAPID, CONSTANT.

THE BELL TELEPHONE COMPANY
OF CANADA.

STEEL, PEECH & TOZER, LIMITED,

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STEEL AXLES, TYRES, AND SPRING STEEL.

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Railway and Tramway Equipment.

New and Second-hand Rails

(All Sections.)

Locomotives, Cars, Derricks,

Hoisting Machinery, etc.

Old Material Bought and Sold.

THE PLACE VIGER MONTREAL

A beautiful new hotel just built by the Canadian Pacific Ry., in connection with their new passenger station. The building occupies an entire block and the style of architecture is that of the Chateau period of the French Renaissance. The hotel faces the Viger Gardens, and is thoroughly up-to-date in all its appointments. American tourists will find the Place Viger a most delightful hotel home.

RATES: \$3 UPWARDS.

Special arrangements with large parties and those making prolonged stays. For further information address, Manager, Place Viger Hotel, Montreal.

IMPERIAL BANK OF CANADA.

Capital authorized - - - \$4,000,000
Capital paid up - - - 2,983,896
Rest - - - 2,636,312

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Manager

The International convention on wireless telegraphy held recently in Berlin, Germany, declared that "coast stations are obliged to receive and transmit telegrams going or returning from ships without distinction as to the system of wireless telegraphy employed by the ships."

The act providing for the establishment of a special news cable service between Canada and Great Britain has been passed by the Dominion Parliament. A suggestion is made that a special cable will in time be laid so that there will be Canadian controlled cable connection with Great Britain.

It is reported that the terminal charges both in Canada and Australia in connection with the all-British trans-Pacific cable are too high, and should be reduced. Lord Strathcona interviewed Sir Wm. Mulock, the Postmaster-General, in connection with the matter, with a view of having Canada make representations to the Pacific Cable Board.

The U.S. Government proposes to lay 1,050 miles of cable between Seattle, Wash., and Juneau, Alaska; 206 miles of cable from Sitka to Juneau, and 150 miles of cable to connect the Sitka line with the Seattle-Juneau cable. The work is to be completed this fall. This will bring up the mileage of telegraph lines and cables in Alaska to over 3,000 miles.

In the British House of Commons, recently, the Chancellor of the Exchequer said he had ascertained that the Pacific Cable Boards' accounts showed a total net expenditure, charged to the Exchequer grant up to March 31, 1902, of £91,437 4s. 11d., which covered interest and also the working expenses of the cable so far as they exceeded the traffic receipts. The charge covered nothing for sinking fund, as the first instalment of the annuity for repayment of the money borrowed for construction did not become payable till December. The share due from the contributing colonies in respect of the expenditure up to March 31 was £65,374 5s. 4d., payment of which would be claimed from the Colonies as soon as the Board's accounts were received.

As early as 1840 an eminent electrician had published his opinion that a submarine cable from England to France was a feasible undertaking. The first such cable was laid in 1842 from Governor's Island to the Battery in New York. In 1850 one was laid across the English Channel, and in 1851 it was replaced by a greatly improved service. In 1853, many miles of submarine cable were laid, and the feasibility of transatlantic telegraphy became a matter of capital and enterprise. For these the world is indebted to the indomitable efforts of the late Cyrus W. Field, the first message having been transmitted in 1858. As in other phases of the march of scientific improvement, the "fairy tales" of ocean telegraphy have long since become the "commonest commonplace."—Globe.

Referring to the recent press reports that the Western Union Telegraph Co. was negotiating with a view to absorbing the Great North-Western Telegraph Co., H. P. Dwight, President, has made the following official statement: "I beg to say that no such action has been contemplated by either of these companies. The recent visit of Western Union officials to Canada was solely for the purpose of consultation with reference to improvements in the service in the mutual interests of the companies, between which there is an exclusive connection. The Great North-Western Telegraph Company, while intimately connected with the Western Union Telegraph Company in its business relations, will remain, as heretofore, a distinctly Canadian institution."

Signor Marconi stated, on his arrival in Montreal, Sept. 11, that there were no insuperable difficulties in the way of making his system a commercial success. There had

been a great deal of criticism and some opponents had tried to belittle his invention, claiming priority, but the only thing that remained was to make arrangements with the several countries which have made contracts in order to get it working on a profitable basis. He expressed the hope that his stations across Canada would be soon under way. He also confirmed the report that his company had signed a contract with the British Admiralty, whereby the Marconi system will be installed on all the ships of His Majesty's navy. Signor Marconi afterwards went to Glace Bay, N.S.

General Telephone Matters.

The Bell Telephone Co. has installed long distance lines to St. Bruno, St. Hubert, Ste. Julie and St. Anicet, Que.

The Bell Telephone Co. has made arrangements with the River du Lievre, Que., Telephone Co., for an interchange of communications.

The Bell Telephone Co. has agreed to interchange communications with the local telephone system serving East Templeton, Wallingford, Blackburn, and Perkins Mills, Que.

The Bell Telephone Co. has extended its long distance lines in Manitoba, so that they now include Manitou, Pilot Mound, Darlingford, and La Riviere on the Pembina branch of the C.P.R.

The Bell Telephone Co. has completed a line from Buckingham, Que., through the townships of Buckingham, Portland and Bowman to High Falls, thus placing that district in communication with Ottawa.

Some citizens of Hamilton, Ont., are not satisfied with the new contract entered into between the city council and the Bell Telephone Co., and propose to take action to have the by-law approving the agreement declared invalid.

Seabright, on St. Margaret's Bay, N.S., has been placed in telephonic communication with Halifax and the rest of the province. The six mile line has been constructed by public subscription, and has been carried through Tantallon and French village.

A number of residents in the vicinity of Gracefield and the Desert, Que., have formed a co-operative telephone exchange. Each subscriber buys his own instrument, and aids in putting up the poles and wires, and pays \$3.50 a year to a man to look after the making of repairs.

An effort is being made in St. John, N.B., to obtain 1,000 subscribers to a proposed new telephone exchange. The promoters of the concern propose to charge an average rate of \$22 a year. The present rates charged by the New Brunswick Telephone Co. in the city are \$40 for business houses and \$23 for residences.

The Chatham, Ont., city council proposes to give the Bell Telephone Co. an exclusive franchise for five years at \$500 a year, the company to furnish the city with free phones, give half rates to hospitals, charge no more rental to subscribers than is paid in cities of equal size and importance in Canada, and give subscribers the right to use any other subscriber's phone without charge.

The Bell Telephone Co. has not less than twenty-seven miles of conduit in Montreal containing 648,266 ft. of duct, besides another 100,000 ft. of duct in the branches leading into lanes and other points of distribution. The cost of laying a conduit is five times as much as the cost of poles and wires, but the cost of maintenance is 15% that of overhead lines, owing to the immunity from storms and other sources of danger existing above ground.

The Bell Telephone Co. has submitted a further offer to the Ottawa city council for an

exclusive franchise. The rate for business houses is to be \$45, and for residences \$23, and the company will accommodate the wires of the fire alarm telegraph on its poles and supply 50 telephones to the city free of charge. This reduction of \$5 in rates of house telephones and the free service supplied the city buildings, the company proposes to offer in lieu of an annual cash payment to the city treasury, which heretofore has been \$1,500 a year. The proposed term of the contract is five years. The city council has not come to any decision regarding the proposal.

The Bell Telephone Co. purposes making a large expenditure in Montreal in improvements. The new building in course of erection on Hospital st. will, says the Montreal Witness, receive the complete new apparatus and equipment and common battery type known as the main exchange district. The ultimate capacity of the switchboard will be 9,600 lines. In addition to providing for local subscribers, the apparatus will provide a new switchboard for long distance service. In the portion of the city known as the East exchange a new building will be provided, and this is now in course of construction on St. Andre st., near St. Catherine st. The switchboard in this exchange will also have an ultimate capacity of 9,600 lines. It is estimated that it will require at least eighteen months to construct these boards. The company will have to change every subscriber's telephone set to conform with the new apparatus. This work will be followed by similar changes and improvements in the other city exchange districts. There are at present connected with the telephone system in Montreal nearly 14,000 lines, and provisions are being made in the new system for an expansion to 50,000. Switchboard provision will also be made for 100 long distance operators. At the present time about 20 operators are engaged in this special line of work. The work is being done under the supervision of T. J. Baylis, electrical engineer of the company, and the apparatus is being manufactured by the Northern Electrical Manufacturing Co., of Montreal, and the aerial and underground cables by the Wire and Cable Co. of Montreal.

The Bell Telephone Co. in Toronto.

The Ontario Court of Appeal has given judgment in the case of the city of Toronto against the Bell Telephone Co. The original action was tried in 1902 before Justice Street, who decided that the Company "have no rights to carry any poles or any wires (whether such wires be above or under ground) along any street in the city of Toronto without first obtaining the consent of the municipal council." The Company appealed, and the present decision is a reversal of that judgment. Chief Justice Moss and Justices Osler, MacLennan and Garrow held unanimously that Justice Street was in error in regard to the powers of the Dominion Parliament; that a work or undertaking such as that of the defendants fell under clause 29 of sec. 91 of the British North America Act and that Parliament had jurisdiction to give the powers which it purported to give by 43 Vict., ch. 67, and properly exercised those powers. The court also held (Justice MacLennan dissenting) that the Provincial statute had no qualifying effect—that the powers given by the Dominion could not be affected by Provincial legislation. Justice MacLennan said that the Dominion Parliament might have contented itself by merely incorporating the Company and leaving them to apply to the different Provinces for the right to erect their lines. Parliament went further and gave the Company absolute power to interfere with property and civil rights. The Company, however, apparently not certain of their position, applied to the Legislature, and by this

legislation were restricted to the control of the city in the matter of the construction of their lines within the city.

The opinion of Justice Garrow was exceedingly explicit. His Lordship doubted whether the provisions of the Ontario statute were in conflict with those of the Dominion. This provision of the second Dominion and Ontario acts could never have been intended to absolutely prohibit the entry into the city of the Company's poles and lines, otherwise they could not even have reached their head office without the city's consent. This required consent, he thought, must be read as a power to regulate and not to prohibit. Under both acts the consent of the council is necessary to a location of a line, which must be located somewhere, and in the locating of which the parties must, of course, act reasonably, but the statutes required action and not merely refusal to act. He thought that both parties were in some degree excessive in their claims, the city claiming a power to withhold entirely their consent, and the Company claiming that they were empowered to choose their own streets.

The city council will probably take the case to a higher court.

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PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Station Name Signs	
Acton Burrows Co.....	Toronto.
Steamboats	
Polson Iron Works.....	Toronto.
Steamboat Signs	
Acton Burrows Co.....	Toronto.
Steam Couplers	
Safety Car Heating and Lighting Co.....	New York.
Steam Shovels	
James Cooper.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
Steel	
James Cooper.....	Montreal.
B. J. Coghlin & Co.....	Montreal.
Wm. Jessop & Sons.....	Sheffield, Eng.
Rice Lewis & Son.....	Toronto.
Steel Buildings	
Dominion Bridge Co.....	Montreal.
Steel for Springs	
James Hutton & Co.....	Montreal.
Steel Plate	
Jas. W. Pyke & Co.....	Montreal.
Steel Tyres	
B. J. Coghlin & Co.....	Montreal.
James Hutton & Co.....	Montreal.
Latrobe Steel Co.....	Philadelphia, Pa.
Jas. W. Pyke & Co.....	Montreal.
Structural Metal Work	
Dominion Bridge Co.....	Montreal.
Locomotive and Machine Co. of Montreal.....	Montreal.
Jas. W. Pyke & Co.....	Montreal.
Studs, Engine and Binder	
John Morrow Machine Screw Co. (Ltd.).....	Ingersoll
Switches	
Montreal Steel Co.....	Montreal.
Switch Lamps	
The Hiram L. Piper Co.....	Montreal.
The N. L. Piper Railway Supply Co.....	Toronto.
Switch Ropes	
The B. Greening Co.....	Hamilton, Ont.
Switch Targets	
Acton Burrows Co.....	Toronto.
Tanks and Tank Fixtures	
Ontario Wind Engine and Pump Co.....	Toronto.
Telegraph and Telephone Office Signs	
Acton Burrows Co.....	Toronto.
Tie Plates	
B. J. Coghlin & Co.....	Montreal.
Tobacco and Cigars	
The Hudson's Bay Company.....	
Toilet Paper	
The Hudson's Bay Company.....	
Tools	
Rice Lewis & Son.....	Toronto.
Track Jacks	
James Cooper.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
A. O. Norton.....	Coaticook, Que.
Track Tools	
Canada Switch and Spring Co.....	Montreal.
James Cooper.....	Montreal.
Rice Lewis & Son.....	Toronto.
W. H. C. Mussen & Co.....	Montreal.
Tramway Equipment	
James Cooper.....	Montreal.
W. H. C. Mussen & Co.....	Montreal.
J. J. Gartshore.....	Toronto.
Trucks (Electric Car)	
Baldwin Locomotive Works.....	Philadelphia, Pa.
Montreal Steel Co.....	Montreal.
Trucks (Warehouse and Express)	
Rice Lewis & Son.....	Toronto.
Turntables	
Dominion Bridge Co.....	Montreal.
Varnishes	
McCaskill, Dougall & Co.....	Montreal.
Vessels	
Polson Iron Works.....	Toronto.
Waste	
B. J. Coghlin & Co.....	Montreal.
Rice Lewis & Son.....	Toronto.
N. L. Piper Ry. Supply Co.....	Toronto.
The Queen City Oil Co.....	Toronto.
Wheelbarrows	
James Cooper.....	Montreal.
Rice Lewis & Son.....	Toronto.
Windmills	
Ontario Wind Engine and Pump Co.....	Toronto.
Window Blinds	
The Hudson's Bay Company.....	
Wines and Liquors	
The Hudson's Bay Company.....	
Wire and Wire Rope	
Dominion Wire Rope Co.....	Montreal.
The B. Greening Co.....	Hamilton, Ont.
Rice Lewis & Son.....	Toronto.
W. H. C. Mussen & Co.....	Montreal.
The Wire and Cable Co.....	Montreal.
Wire, Brass and Steel	
Dominion Wire Manufacturing Co.....	Montreal.

Wire Cloth

The B. Greening Co..... Hamilton, Ont.

Wire, Copper

Dominion Wire Manufacturing Co..... Montreal.
E. F. Phillips Electrical Works, Ltd..... Montreal.
The Wire and Cable Co..... Montreal.

Wire, Electric

Dominion Wire Manufacturing Co..... Montreal.
E. F. Phillips Electrical Works, Ltd..... Montreal.
The Wire and Cable Co..... Montreal.

Wire Goods

Dominion Wire Manufacturing Co..... Montreal.

Wire, Insulated Copper

E. F. Phillips Electrical Works, Ltd..... Montreal.
The Wire and Cable Co..... Montreal.

Wire, Telegraph and Telephone

Dominion Wire Manufacturing Co..... Montreal.
E. F. Phillips Electrical Works, Ltd..... Montreal.
The Wire and Cable Co..... Montreal.

Wire, Transmission and Trolley

Dominion Wire Manufacturing Co..... Montreal.
The Wire and Cable Co..... Montreal.

Wood Screws

Dominion Wire Manufacturing Co..... Montreal.

Yachts

Polson Iron Works..... Toronto.

The Durand Collision on the G.T.R.—The State Railroad Commissioner of Michigan has received from the G.T.R. a report of the disastrous collision at Durand on Aug. 7, in which 21 circus employees and two railroad men were killed and over 30 persons injured. In a rear collision, due to failure to control speed, a sleeping car and a caboose were completely wrecked; and it was the occupants of these two cars who were the victims. The report says that so far as can be determined by the investigation, "it is thought that the engineer of the second section instead of placing the engineer's valve in running position, after stopping at Lansing, placed it on lap, thus shutting off the flow of air from the main reservoir to the train line. All appliances were found to be in good condition." The collision occurred at about 4 o'clock in the morning. The first circus train was stopped at the entrance to the yard, and was run into at the rear by the second circus train. A flagman was sent back from the foremost train, but his signals were ineffectual.

New Railway Devices.—Three models of some new devices for the purpose of ensuring the safe operation of trains are on exhibition in the office of the Department of Railways, Ottawa. The devices are the invention of E. Renaud, of Laval University, Montreal. The devices are shown by a section of train 30 ft. long, and are three in number. One is intended to operate switches automatically by the movement of the train along the track. Another is to prevent collisions by trains being automatically brought to a standstill when they come to within one mile of each other. A third patent is to automatically control the working of gates, bridge swings, crossings, and to cover a series of signals, semaphores, diamond lights, etc., within a quarter of a mile of one another along the track, which are operated automatically by the locomotive as it moves along the track. The motive power to operate all the devices is direct force from the engine coming in contact with a series of upright posts along the track, which bend over as it passes.

G. F. Bristol, formerly assistant engineer of the Grand Rapids district of the Pere Marquette Rd., has been appointed General Manager of the Duluth, Virginia and Rainy River Rd., now under construction to Koochi-ching, Minn., opposite Fort Francis, Ont.

The Central Contracting Co. (Ltd.), has been incorporated under the Dominion Companies' Act, with a capital of \$100,000 and headquarters in Toronto, to enter into contracts for doing work and supplying materials in connection with the building and operation of railways, canals, bridges and other public works, dry docks, dams, elevators, wharves, piers, etc. Thos. Reid, solicitor, Toronto, is acting for the promoters.

The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Steamship, Express, Telegraph & Telephone supplies, &c.

Accident Insurance

Canadian Ry. Accident Ins. Co. Ottawa, Ont.
Travelers' Insurance Co. Montreal.

Aerated Waters

E. L. Drewry Winnipeg.

Air Brakes & Fittings

Westinghouse Mfg. Co. Hamilton, Ont.

Ales

E. L. Drewry Winnipeg.

Anchors

Rice Lewis & Son Toronto.

Axles

James Hutton & Co. Montreal.
Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Babbitt

Rice Lewis & Son Toronto.

Blankets & Bedding

The Hudson's Bay Company

Block & Tackle

Dominion Wire Rope Co. Montreal.
Rice Lewis & Son Toronto.

Boat Fittings & Hardware

Rice Lewis & Son Toronto.

Boiler Covering

Mica Boiler Covering Co. Montreal.

Boilers

Polson Iron Works Toronto.

Boiler Tubes

B. J. Coghlin & Co. Montreal.
Jas. W. Pyke & Co. Montreal.

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts

Rice Lewis & Son Toronto.

Bolts, Boiler Patch

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Brake Beams

Simplex Railway Appliance Co. Montreal.

Brass and Copper Cloth

The B. Greening Co. Hamilton, Ont.

Brass Castings

St. Thomas Brass Co. St. Thomas, Ont.

Bridge Numbers

Acton Burrows Co. Toronto.

Bridges

Dominion Bridge Co. Montreal.

Buoy Lighting

Safety Car Heating and Lighting Co., New York

Cables, Electric and Feeder

E. F. Phillips Electrical Works, Ltd., Montreal.
The Wire and Cable Co. Montreal.

Car Couplers

Latrobe Steel and Coupler Co., Philadelphia, Pa.

Car Heating

Safety Car Heating and Lighting Co., New York

Car Jacks

James Cooper Montreal.
W. H. C. Mussen & Co. Montreal.

Car Lighting

Safety Car Heating and Lighting Co., New York

Carpets

The Hudson's Bay Company

Cars

Rhodes, Curry & Co. Amherst, N.S.

Car Wheels

Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Castings

Montreal Steel Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Cement Machinery

Jas. W. Pyke & Co. Montreal.

Chains

Rice Lewis & Son Toronto.

Coal Haulage Ropes

The B. Greening Co. Hamilton, Ont.

Concrete Mixers

W. H. C. Mussen & Co. Montreal.

Contractors' Plant

James Cooper Montreal.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Cotter Pins

Dominion Wire Manufacturing Co. Montreal.

Cross Arms, Top Pins & Side Blocks

The Firstbrook Box Co. Toronto.

Crossing Gates

The N. L. Piper Railway Supply Co. Toronto.

Curtains

The Hudson's Bay Company

Cuts

Acton Burrows Co. Toronto.

Derrick Ropes

The B. Greening Co. Hamilton, Ont.

Derricks

James Cooper Montreal.

Door Signs

Acton Burrows Co. Toronto.

Dry Goods

The Hudson's Bay Company

Electric Car Route Signs

Acton Burrows Co. Toronto.

Electric Cranes

Dominion Bridge Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Enameled Iron Signs

Acton Burrows Co. Toronto.

Engines, Stationary & Marine

Polson Iron Works Toronto.

Engraving

Acton Burrows Co. Toronto.
Toronto Engraving Co. Toronto.

Expanded Metal

Expanded Metal and Fire-Proofing Co. Toronto.

Express Office Signs

Acton Burrows Co. Toronto.

Fencing

Canadian Steel and Wire Co. Hamilton, Ont.
Dominion Wire Manufacturing Co. Montreal.
Page Wire Fence Co. Walkerville, Ont.

Fire-Proofing

Expanded Metal and Fire-Proofing Co. Toronto.

Flags

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Flour

The Hudson's Bay Company
The Ogilvie Flour Mills Co. Montreal.

Foghorns

Rice Lewis & Son Toronto.

Gates

Page Wire Fence Co. Walkerville, Ont.

General Supplies

The Hudson's Bay Company

Grain Elevators

John S. Metcalfe Co. Chicago, Ill.

Groceries

The Hudson's Bay Company

Hardware

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Headlights

N. L. Piper Railway Supply Co. Toronto.

Hose

Rice Lewis & Son Toronto.

Illustrations

Acton Burrows Co. Toronto.

Interlocking Plants

Montreal Steel Co. Montreal.

Iron

Rice Lewis & Son Toronto.

Iron Signs

Acton Burrows Co. Toronto.

Japans

McCaskill, Dougall & Co. Montreal.

Journal Bearings

Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry Winnipeg.

Lamps & Lanterns

The Hudson's Bay Company
Rice Lewis & Son Toronto.
The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Launches

Polson Iron Works Toronto.

Life Insurance

Travelers' Insurance Co. Montreal.

Lights, Contractors and Wrecking

James Cooper Montreal.
W. H. C. Mussen & Co. Montreal.

Linoleum and Floor Coverings

The Hudson's Bay Company

Locomotives (Compressed Air)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Electric)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Rack)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Steam)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Canadian Locomotive Co. Kingston, Ont.
James Cooper Montreal.
Locomotive and Machine Co. of Montreal
W. H. C. Mussen & Co. Montreal.
The Saxon Engine Works, Chemnitz, Germany.

Machine Tools

The Saxon Engine Works, Chemnitz, Germany

Matches

The Hudson's Bay Company

Milepost Numbers

Acton Burrows Co. Toronto.

Mohair

The Hudson's Bay Company

Nails, Wire

Dominion Wire Manufacturing Co. Montreal.

Numbers

Acton Burrows Co. Toronto.

Nuts, Cold Pressed

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Oakum

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Oils

Galena-Signal Oil Co., Franklin, Pa., & Toronto.
The Queen City Oil Company Toronto.

Office Signs

Acton Burrows Co. Toronto.

Packing

The N. L. Piper Railway Supply Co. Toronto.

Pinch Bars

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Pipe Covering

Mica Boiler Covering Co. Montreal.

Plushes

The Hudson's Bay Company

Porter

E. L. Drewry Winnipeg.

Portland Cement

Rice Lewis & Son Toronto.

Printing

The Hunter, Rose Co. Toronto.
The Mail Job Printing Company Toronto.

Pumps

Rice Lewis & Son Toronto.

Railway Supplies

The N. L. Piper Railway Supply Co. Toronto.

Rails (New)

James Cooper Montreal.
Drummond, McCall & Co. Montreal.
J. J. Gartshore Toronto.

Rails (for relaying)

James Cooper Montreal.
J. J. Gartshore Toronto.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Rice Lewis & Son Toronto.
Jas. W. Pyke & Co. Montreal.

Roof Trusses

Dominion Bridge Co. Montreal.

Rope

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Screws, Milled Machine

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Semaphore Arms

Acton Burrows Co. Toronto.

Semaphores

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Shafting

Rice Lewis & Son Toronto.

Shipbuilders' Tools & Supplies

Rice Lewis & Son Toronto.

Ship Lamps

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Ships

Polson Iron Works Toronto.

Shovels

James Cooper Montreal.
The Hudson's Bay Company
Rice Lewis & Son Toronto.

Side Bearings

Simplex Railway Appliance Co. Montreal.

Signal House Numbers

Acton Burrows Co. Toronto.

Signals

The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Signs

Acton Burrows Co. Toronto.

Snow Ploughs

Rhodes, Curry & Co. Amherst, N.S.

Spikes

Rice Lewis & Son Toronto.

Springs

B. J. Coghlin & Co. Montreal.
Montreal Steel Co. Montreal.

(Continued on preceding page.)

Hudson's Bay Company

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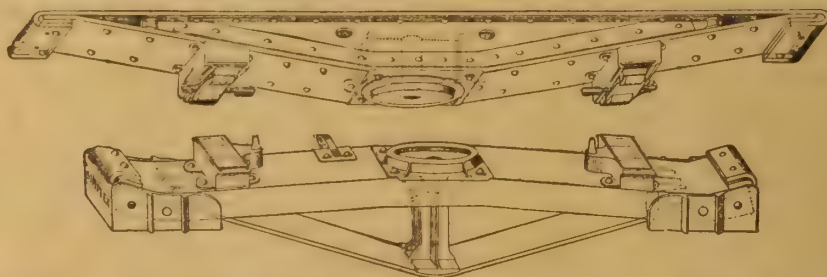
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Dominion Railway and Bridge Subsidies.

The resolutions introduced in the House of Commons, Oct. 6, by Hon. W. S. Fielding, acting Minister of Railways, respecting the aiding of railways, and which were adopted, were as follows:—

The Governor-in-Council may grant a subsidy of \$3,200 per mile towards the construction of each of the undermentioned lines of railway (not exceeding in any case the number of miles hereinafter respectively stated) which shall not cost more on the average than \$15,000 per mile for the mileage subsidized, and towards the construction of each of the said lines of railway, not exceeding the mileage hereinafter stated, which shall cost more on the average than \$15,000 per mile for the mileage subsidized, a further subsidy beyond the sum of \$3,200 per mile of fifty per cent. on so much of the average cost of the mileage subsidized as is in excess of \$15,000 per mile, such subsidy not exceeding in the whole the sum of \$6,400 per mile:—

NOVA SCOTIA.

Debert to I.C.R.—For a line from Debert station on the Intercolonial Railway to Debert coal mine, not exceeding $4\frac{1}{2}$ miles, in lieu of the subsidy granted by chapter 8 of 1900, item 29 of section 2.

Halifax and Southwestern Ry. Co.—For the following lines of railway: (a) for a line of railway from a point at or near Halifax to a point on the Central Railway at or near Mahone Bay, not exceeding 62 miles; (b) for a line of railway from a point on the Central Railway at or near Bridgewater towards Barrington Passage, not exceeding 83 miles; (c) for a line of railway from a point at or near New Germany on the Central Railway to a point at or near Caledonia, not exceeding 22 miles; (d) for a line of railway from a point at or near Caledonia to Liverpool, not exceeding 29 miles. The subsidies to the said lines of railway being granted in lieu of the subsidies granted by chapter 7 of 1899, items 17, 18, 35 and 36 of section 2, by chapter 8 of 1900, items 26 and 40 of section 2, and also chapter 7 of 1901, items 5 and 23 of section 2, respectively.

Inverness Ry. and Coal Co. (Formerly the Inverness and Richmond Ry. Co., Limited).—For 8 miles of railway between Point Tupper and Broad Cove; and for a line of railway not exceeding 37 miles, from Cheticamp to a point on the line already built between Broad Cove and Point Tupper, being a revote and in substitution of the subsidy granted by chapter 4 of 1897.

Mabou and Gulf Ry. Co. (Limited).—For a line from Mabou coal mines to a point at or near Glendyer, thence to Orangedale on the

Intercolonial Railway, not exceeding 34 miles, a revote of subsidy granted by chapter 4 of 1894, and in substitution of the 25 miles subsidized thereby from Orangedale to Broad Cove.

Middleton and Victoria Beach Ry. Co. (Limited).—For a line from Victoria Beach to Middleton, not exceeding 41 miles, in lieu of subsidies granted by chapter 8 of 1900, section 2, item 28, and chapter 7 of 1901, section 2, item 21.

Minudie.—For a line from a point on the Joggins Ry., near River Herbert railway

lieu of the subsidy granted by chapter 7 of 1901, section 2, item 19.

NEW BRUNSWICK.

International Ry. Co. of New Brunswick (formerly the Restigouche and Western Ry. Co.)—For a line of railway from the western end of the ten miles of its railway, as already constructed from Campbellton towards a point on the St. John River between Grand Falls and Edmundston, not exceeding 67 miles, being a revote, and in lieu of subsidies granted by chapter 4 of 1897, chapter 7 of 1899, item 42 of section 2, and chapter 8 of 1900, item 22 of section 2.

Shediac and Coast Ry. Co.—For a line from Shediac to Shemogue and towards Cape Tormentine, in Westmoreland county, not exceeding 38 miles, in lieu of subsidy granted by chapter 8 of 1900, item 25 of section 2.

St. John Valley Ry. Co.—For a line of railway from a point on the C.P.R. at or near Welford or Westfield, or between said two points to Gagetown, not exceeding 30 miles, being a revote of the subsidy granted by chapter 4 of 1897.

Woodstock to the U.S. Boundary.—For a line from Woodstock to the International Boundary, not exceeding 26 miles, being a revote of the subsidy granted by chapter 4 of 1894.

QUEBEC.

Joliette to Lake Manuan.—For a line from Joliette to or near Lake Manuan, a distance not exceeding 60 miles, being a revote and in lieu of subsidies granted by chapter 4 of 1897 and chapter 8 of 1900.

Jonquières to La Baie des Ha Ha.—For a line not exceeding 20 miles, in lieu of subsidy of 12 miles granted by chapter 7 of 1899, item 21 of section 2.

Lime Ridge Northerly.—For a line from Lime Ridge northerly through the county of Wolfe into the county of Megantic, not exceeding 50 miles, being a revote of subsidy granted by chapter 4 of 1894.

Montfort and Gatineau Colonization Ry. Co.—To extend its railway from Arundel to a point in the municipality of the united townships of Preston and Hartwell, not exceeding 30 miles, in lieu of subsidy granted by chapter 8 of 1900, item 31 of section 2.

Ottawa, Northern and Western Ry. Co.—For that portion of its line from a point at the east end of the Hull station yard of the C.P.R. to a point of junction with the Interprovincial Bridge approach in the city of Hull, not exceeding one mile; and for a line of railway into and through the city of Hull from a point on the Ottawa and Gatineau Ry.; now the Ottawa, Northern and Western Ry., not exceeding $1\frac{1}{4}$ miles, in lieu of the subsidies



A. J. GORRIE,

General Superintendent, Great Northern Railway of Canada.

bridge to the village of Minudie, not exceeding 6 miles, being a revote and in substitution of subsidy granted by chapter 4 of 1894.

Nova Scotia Eastern Ry. Co. (Limited).—For a line from New Glasgow to Country Harbour and Guysborough, and from a point on the said railway to Mulgrave, not exceeding 116 miles, in lieu of the subsidies of 40 and 80 miles granted by chapter 7 of 1901, items 4 and 1, respectively, of section 2.

Wolfville to Minas Basin.—For a line from a point at or near Wolfville on the Dominion Atlantic Ry. to the Government pier on the Basin of Minas, not exceeding one mile, in

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NEXT ANNUAL MEETING of the Grand Council in
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THE RAILWAY AND SHIPPING WORLD,
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Dominion Railway and Bridge Subsidies.

(Continued from page 365.)

granted by chapter 7 of 1899, section 2, items
12 and 39 respectively.

Roberval to James' Bay.—For a line from
Roberval westward towards James Bay, not
exceeding 60 miles, in lieu of subsidy granted
by chapter 7 of 1901, item 25 of section 2.

St. Eustache to St. Placide.—For a line
from St. Eustache to St. Placide in the county
of Two Mountains, not to exceed 18 miles;
from St. Eustache to Sault Recollet, 12 miles;
and from St. Placide to St. Andrews, 8 miles,
not exceeding in all 38 miles, being a revote
of subsidies granted by chapter 10 of 1886,
chapter 24 of 1887 and chapter 5 of 1892, re-
spectively.

Yamaska to Lotbinière.—For a line from
Yamaska to Lotbinière, a distance not ex-
ceeding 70 miles, in lieu of the subsidy grant-
ed by chapter 7 of 1899, item 27 of section 2.

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ONTARIO.

Central Ontario Ry.—For a further exten-
sion of its railway from a point at or near Ban-
croft to a point on the Canada Atlantic Ry. at
or near Whitney, not exceeding 40 miles, in
lieu of subsidies granted by chapter 8 of 1900,
item 5 of section 2, and chapter 7 of 1901, item
16 of section 2, respectively.

Lindsay, Bobcaygeon and Pontypool Ry.
Co.—For a line from Burketon to Bobcaygeon,
not exceeding 40 miles, in lieu of the subsidy
granted by chapter 7 of 1899, item 11 of sec-
tion 2.

Strathroy and Western Counties Ry. Co.
—For a line from Lambeth to Strathroy via
Mount Brydges and Caradoc, not exceeding
in all 31 miles, in lieu of subsidies granted by
chapter 7 of 1899, item 4 of section 2, and chap-
ter 8 of 1900, item 2 of section 2, respectively.

Tillsonburg, Lake Erie and Pacific Ry.
Co.—For a line from the present terminus at
Ingersoll to Woodstock, not exceeding 9
miles, in lieu of subsidy granted by chapter 7
of 1899, item 26 of section 2.

Toronto, Lindsay and Pembroke Ry. Co.
—For a line from Golden Lake to Pembroke,
not exceeding 51 miles, in lieu of subsidy
granted by chapter 7 of 1901, item 6 of sec-
tion 2.

MANITOBA.

Winnipeg to Icelandic River.—For a line
from Winnipeg Beach or Teulon to a point on

Icelandic River by way of Gimli, not exceeding 35 miles, in lieu of subsidy granted by chapter 7 of 1901, section 2, item 26.

ALBERTA.

Edmonton, Yukon and Pacific Ry. Co.—For a line from the town of South Edmonton, N.W.T., to North Edmonton, and thence westerly towards the Yellow Head Pass, a distance not exceeding 50 miles, in lieu of subsidy granted by chapter 7 of 1899, section 2, item 41.

BRITISH COLUMBIA

Nicola, Kamloops and Similkameen Coal and Ry. Co.—For a line of railway from a point at or near Spence's Bridge on the C.P.R. to Nicola Lake, not exceeding 45 miles, being a revote of subsidies granted by chapter 5 of 1892 and chapter 4 of 1894.

The above are revotes of subsidies previously voted, but not earned. The following are new subsidies:

NOVA SCOTIA.

Cumberland Ry. and Coal Co.—For a line of railway from Parrsboro' Station to Riverside wharf, not exceeding 1 mile.

Halifax and Southwestern Ry. Co.—For a line of railway to Barrington Passage, in addition to and in continuation of the 63 miles mentioned in item 23 (b) of this section, not exceeding 19 miles.

Mabou and Gulf Ry. Co. (Limited).—For a line from a point on the Intercolonial Railway at or near Mines Road station to the wharf at Caribou Cove, not exceeding 4 miles, being in addition to subsidy mentioned in item 18 of this section.

Midland Ry. Co. (Limited).—For a line of railway from Truro northerly towards Brule, not exceeding 34 miles.

Nova Scotia Eastern Ry. Co. (Limited).—For a line from Dartmouth through the Musquodoboit Valley to a point at or near Melrose to connect there with the railway mentioned in item 19 of this section, not exceeding 120 miles.

St. Peters to Louisburg.—For a line from St. Peters to Louisburg, not exceeding 50 miles.

NEW BRUNSWICK.

Beersville Coal and Ry. Co.—For a line from Adamsville on the Intercolonial Railway to a point at or near Brown's Landing or Beersville, not exceeding 7 miles.

International Ry. Co. of New Brunswick.—For a line in addition to and in extension of the line of 67 miles mentioned in item 14 of this section, to a point on the St. John river between Grand Falls and Edmundston, not exceeding 33 miles.

York and Carlton Ry. Co.—For a line from its present terminus westerly, not exceeding 5 miles.

QUEBEC.

Atlantic, Quebec and Western Ry. Co.—For a line of railway from Gaspé to a point at or near Causapscal on the Intercolonial Railway, and from that point to Edmundston, N.B., not exceeding 260 miles; and for a line of railway from Paspebiac to Gaspé as near the shore as practicable, not exceeding 102 miles.

Chateauguay and Northern Ry. Co.—For a line of railway from a point on its main line at or near L'Epiphanie, passing by way of the parish of St. Jacques l'Achigan to the village of Rawdon, not exceeding 16 miles.

Great Northern Ry. of Canada.—For a line of railway from Garneau Junction to the Quebec Bridge, not exceeding 70 miles.

Interprovincial and James Bay Ry. Co.—For a line from Lake Temiscamingue at the present terminus of the C.P.R. line, in a northerly direction, not to exceed 50 miles.

La Bouchette to St. Andre.—For a line from the station of La Bouchette on the Que-

bec and Lake St. John Railway to St. Andre, not exceeding 13 miles.

La Tuque to Jeannotte River.—For a line from La Tuque on the St. Maurice river to a point on the Lake St. John Ry., where it crosses the river Jeannotte, not exceeding 35 miles.

Lime Ridge to Quebec.—For a line in extension of the line from Lime Ridge into the county of Megantic to the bridge over the St. Lawrence at or near Quebec, not exceeding 30 miles.

Matane and Gaspé Ry. Co.—For a line of railway from a point at or near St. Octave on the Intercolonial Railway to Matane, not exceeding 30 miles.

Montfort and Gatineau Colonization Ry. Co.—For the extension of its line of railway from Morin Flats to St. Jerome to connect with the Great Northern Railway, not exceeding 22 miles.

Montreal Northern Ry. Co.—For a line from a point at or near Ste. Agathe des Monts station towards the township of Howard, in the county of Argenteuil, passing near Lake St. Joseph and Ste. Marie, in a southerly direction, a distance not exceeding 15 miles.

Nominigue to La Lièvre.—For a line from Lake Nominigue to La Lièvre, not exceeding 35 miles.

Orford Mountain Ry. Co.—From a point on its main line between Lawrenceville and Eastman to Lake Bonella, 5 miles; from Kingsbury to Windsor Mills, 10 miles; and from Eastman to the town line between township of Bolton, east part, and township of Potton, 12 miles; not exceeding in the whole 27 miles.

Quebec Central Ry. Co.—For an extension of its line of railway from St. Francois to St. George, not exceeding nine miles; also for a railway from Scott Junction to the Quebec bridge, not exceeding 22 miles.

Quebec and Lake St. John Ry. Co.—For one mile of line from Roberval to the Government Wharf at Lake St. John.

Quebec to Seven Islands.—For a line from Quebec towards Seven Islands, not exceeding 200 miles.

Roberval to James Bay.—For a line in addition to and in extension of the line mentioned in subsection eleven, from Roberval towards James Bay, not exceeding 40 miles.

St. Guillaume to River Yamaska.—For a line from the line of the Montreal and Atlantic Ry. Co. at St. Guillaume to the river Yamaska to join with the South Shore Ry., a distance not exceeding 12 miles.

St. Philippe to Brownsburg.—For a branch line from a point on the C.P.R. at or near St. Philippe d'Argenteuil, thence in a northerly direction, passing through the village of Brownsburg, not exceeding 3 miles.

Trois Pistoles to Mackenzie.—For a branch line from a point near the bridge at river Trois Pistoles on the Intercolonial Railway in a south-easterly direction to Mackenzie and Renouf Falls, river Trois Pistoles, not exceeding 2½ miles.

Waltham to Ferguson Point.—For a line from Waltham station to Ferguson Point in the county of Pontiac, not exceeding 20 miles.

ONTARIO.

Bay of Quinte Ry. Co.—For further extension of its line of railway, from the northern terminus thereof, commencing from a point at or near Actinolite, thence in a northwesterly direction via the villages of Queensboro' and Bannockburn to a point in the township of Marmora or Lake in Hastings county, not exceeding 20 miles in all.

Bruce Mines and Algoma Ry. Co.—For 21 miles from the end of its line, as subsidized

by Edward VII, chapter 7 (1901), northward, not exceeding 21 miles.

Irondale, Bancroft and Ottawa Ry. Co.—For a line from the present terminus of its railway, near Bancroft, easterly to a point at or near Renfrew, not exceeding 75 miles.

James Bay Ry. Co.—For a line from Toronto via the east side of Lake Simcoe to a point at, near or beyond Sudbury through Parry Sound, not exceeding 265 miles, in lieu of two subsidies granted by chapter 8 of 1900, of 35 and 20 miles, respectively, from Parry Sound towards James Bay.

Lake Superior, Long Lake and Albany Ry. Co.—For a line of railway from Peninsula Harbor in a northerly direction, not exceeding 10 miles.

Manitoulin and North Shore Ry. Co.—For a line from Little Current on its present line, to Sudbury, and thence towards the main line of the C. P. R., not exceeding 30 miles, in lieu of the subsidy of 21 miles granted by chapter 7 of 1899, item 38 of section 2.

Nepigon Ry. Co.—For a line from Lake Superior to Lake Nepigon and from a point on the north shore of Lake Nepigon northerly, not exceeding 80 miles.

Sturgeon Falls to Lake Temagami.—For a line from a point at or near Sturgeon Falls in a northwesterly direction to a point on the westerly shore of Lake Temagami in the district of Nipissing, not exceeding 50 miles.

Thunder Bay, Nepigon and St. Joe Ry. Co.—For a line from Port Arthur northeasterly, not exceeding 50 miles.

Tillsonburg, Lake Erie and Pacific Ry. Co.—For a line from Woodstock northerly to a point on the G.T.R. at Berlin or Stratford or to any point on the G.T.R. between these places, not exceeding 31 miles, being in addition to, and continuation of the nine miles mentioned in subsection one of this section.

ASSINIBOIA.

Canadian Pacific Ry. Co.—For a branch line from a point on the main line between Moosomin and Elkhorn, northwesterly to a point in the neighborhood of the Pheasant Hills, not exceeding 136 miles.

Medicine Hat to coal fields.—For a line from a point at or near Medicine Hat on the Canadian Pacific Railway to the coal fields in or near townships 12 and 13, range 6, west of fourth principal meridian, not exceeding 8 miles.

ALBERTA.

St. Mary's River Ry. Co.—For a line from Spring Coulee, crossing St. Mary's river to Cardston, 16 miles, and from a point on this line to or near the intake of the irrigation canal, about 16 miles, in all not exceeding 32 miles.

BRITISH COLUMBIA.

Kootenay Central Ry. Co.—For a line from Golden to the International Boundary line, via Windermere and Fort Steele, and crossing the Crow's Nest Ry. at or near Elko, not exceeding 106 miles.

Kettle River Valley Ry. Co.—For a line from Grand Forks to a point 50 miles up the North Fork and West Fork of the North Fork of Kettle River, not exceeding 50 miles.

Midway to Vernon.—For a line from Midway to Vernon, not exceeding 150 miles.

Wellington to Union Bay.—For a line from Wellington to Union Bay, not exceeding 55 miles.

YUKON TERRITORY.

Dawson City to Stewart River.—For a line from Dawson City to Stewart River, passing at or near Grand Fork, not exceeding 84 miles.

The Governor-in-Council may grant the subsidies hereinafter mentioned towards the construction of the bridges also hereinafter mentioned, that is to say:—

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturers of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

Towards the construction and completion of a railway bridge and approaches over the Nicolet river at Nicolet, in lieu of a grant under chapter 8 of 63-64 Victoria, item 39 of section 2, \$15,000.

Towards the construction of the steel superstructure of a railway bridge on the St. Francois river, in the county of Yamaska, in lieu of a grant under chapter 8 of 63-64 Victoria, item 38 of section 2, but subject to the same conditions as expressed therein, payable to the Canadian Bridge Co., of Walkerville, as their claim may appear for work already done on said bridge, \$50,000.

To the Canadian Bridge Company of Walkerville. To strengthen and complete the foundation and approaches to the bridge over the St. Francois river subsidized to the South Shore Railway Company by section 3, chapter 7, Victoria 62-63, a sum of \$35,000, which amount shall remain the first charge on the road, and to be recouped to the treasury out of subsidies earned or to be earned, \$35,000.

To the Chateaugay and Northern Ry. Co. In addition to the subsidy for the Bout de L'Isle Bridge granted by chapter 8, section 33, Victoria 63-64, \$50,000.

The usual conditions attaching to the granting of subsidies are referred to in the resolutions, and provision is made for the payment of the subsidies by instalments as the work on the several lines progresses, or on their completion. The works are to be commenced in two years, and completed in four years. The following resolution is applicable to all the subsidies voted:—"That the Governor-in-Council may make it a condition of the grant of the subsidies herein provided, or any heretofore authorized by any preceding act of Parliament as to which a contract has not yet been entered into with the company for the construction of the railway, that the company shall lay its road with new steel rails, made in Canada, if the same are procurable in Canada of suitable quality, upon terms as favorable as other rails can be obtained, of which the Minister of Railways and Canals shall be the judge.

G.T.R. SEMI-ANNUAL REPORT.

The following report for the ½-year ended June 30, was submitted at the meeting in London, Eng., Oct. 9:

The following summary shows a comparison of the ½-year's revenue account with that of the corresponding ½-year, ended June 30, 1902:

June 30, 1902.		June 30, 1903.
£2,377,201	Gross receipts.....	£2,778,080 8 10
	Deduct—	
1,603,612	Working expenses, being at the rate of 71.81%, as compared with 67.45% in 1902..	1,995,031 14 8
773,589	Net traffic receipts.....	783,048 14 2
	Add—	
12,931	Amount received from the International Bridge Co...	12,930 12 9
192	Interest on Toledo, Saginaw, and Muskegon bonds.	2,571 3 5
6,507	Interest on bonds of Central Vermont Ry.....	6,506 14 3
68,390	Interest on securities of controlled lines and on St. Clair tunnel bonds acquired by the issue of Grand Trunk 4% debenture stock	60,311 1 6
13,566	Balance of general interest account.....	12,546 8 2
£875,175	Net revenue receipts....	£ 877,914 14 3

NET REVENUE CHARGES FOR THE HALF-YEAR.

June 30, 1902.		June 30, 1903.
£ 77,603	Rents (leased lines).....	£ 77,603 0 9
472,003	Interest on debenture stock and bonds of the Co.....	481,017 0 4
63,395	Interest on debenture stock and bonds of lines consolidated with the G.T.Co.	50,402 1 9
613,001		609,022 2 10

14,747 Amount advanced to the Detroit, Grand Haven and Milwaukee Co. towards the payment of interest on its bonds, under agreements, ½-year to June 30, 1903.....

627,748		14,364 16 2
247,427	Leaving a surplus of.....	623,386 19 0
£875,175		254,527 15 3
		£877,914 14 3

Adding the balance of £4,040 16s. od. at the credit of net revenue account on Dec. 31, 1902, to the above surplus for the past ½-year of £254,527 15s. 3d., the total amount available for dividend is £258,568 11s. 3d., from which the Directors recommend the payment of the following dividends, viz.:

½-year's dividend on the 4% guaranteed stock.....	£104,395 17 6
½-year's dividend on the 1st Preference stock.....	85,420 15 0
½-year's dividend on the 2nd Preference stock.....	63,210 0 4
	£253,026 12 10

leaving a balance of £5,541 18s. 5d. to be carried forward to next ½-year's accounts.

GROSS RECEIPTS.

Comparison of receipts for ½-years ending June 30, 1903 and 1902:

Description of Receipts.	1902.	1903.
Passengers.....	£ 681,107	£ 681,107
Mails and express.....	119,101	119,101
Freight and live stock.....	1,994,689	1,994,689
Miscellaneous.....	73,183	73,183
	£2,778,080	£2,778,080

Description of Expenditure.	1902.	1903.
Maintenance of way, and structures.....	£ 79,638	£ 79,638
Maintenance of equipment.....	12,757	12,757
Conducting transportation.....	106,314	106,314
General expenses.....	366,735	366,735
Taxes.....	71,464	71,464
	£2,377,201	£2,377,201

The average rate per ton per mile on the entire freight business was 0.65 of a cent, compared with 0.62 of a cent in the corresponding ½-year.

The working expenses, excluding taxes, amounted in the ½-year to £1,978,850, or 71.23% of the gross receipts, as compared with £1,590,013, or 66.88%; an increase in amount of £388,837, and an increase in the proportion to the gross receipts of 4.35%.

The outlay on capital account for the ½-year amounted to £123,481 12s. 9d., the principal items of expenditure being £65,581 8s. 10d., for double tracking the line between Hamilton and Niagara Falls, and Whitby and Port Hope, and £52,017 1s. 10d., for additional land at Montreal, Toronto, Stratford, &c., for the improvement of terminal and traffic facilities.

There has been credited to this account a sum of £19,084 1s. 6d., in respect of premium received during the ½-year on the sale of 4% debenture stock, reducing the total charges to capital account for the past ½-year to £104,397 11s. 3d.

Comparison of the revenue expenditure, including taxes, for the ½-years ended June 30, 1903 and 1902:

Description of Expenditure.	1902.	1903.
Maintenance of way, and structures.....	£ 79,638	£ 79,638
Maintenance of equipment.....	12,757	12,757
Conducting transportation.....	106,314	106,314
General expenses.....	366,735	366,735
Taxes.....	71,464	71,464
	£2,377,201	£2,377,201

Description of Mileage.	1902.	1903.
Passenger.....	3,315,697	3,315,697
Freight.....	4,532,674	4,532,674
Mixed trains.....	535,845	535,845
Total.....	8,374,196	8,374,196

The large increase in the cost of conducting transportation is to a considerable extent attributable to the increased cost of fuel for locomotives resulting from the prolonged coal strike in the U.S. The increase in the ½-year under this head amounted to £199,129, of which about £145,000 was caused by increased price and the remainder by the increased amount of work performed.

From the foregoing statements it will be observed that the Grand Trunk gross receipts for the ½-year show an increase of £400,879, or 16.86%; the working expenses, including taxes, an increase of £391,420, or 24.41%; and the train mileage an increase of 1,306,235, or 15.60%.

ROLLING STOCK.

No additions to the stock at the expense of capital have been made during the ½-year. Twenty freight engines, 20 passenger cars (10 first-class and 10 baggage), 179 box cars, 729 platform cars, and 51 brake vans have been built in the Co.'s shops during the ½-year on revenue account, and at June 30 there remained an amount of £92,089 16s. 3d. at the credit of engine and car renewal funds, applicable to future renewals.

The gross receipts of the G.T. Western Ry. Co. for the ½-year amounted to £554,020, against £464,654 in 1902, an increase of £89,366, and the working expenses were £475,586, against £398,375, an increase of £77,211, leaving a net profit amounting to £78,434, against £66,279, an increase of £12,155 compared with the corresponding period of 1902. The net revenue charges for the ½-year were £75,439, against £73,322, so that there was a net revenue surplus for the ½-year of £2,995, as compared with a deficiency of £7,043 for the corresponding ½-year of 1902. The above surplus of £2,995, added to the surplus of £618 for the ½-year ended December 31, 1902, and the balance of £465 carried forward on June 30, 1902, makes a net revenue balance of £4,078 on June 30 last, which will admit of the payment of 1% on the 2nd mortgage income bonds. The number of passengers carried during the ½-year was 737,637, against 634,893, an increase of 102,744, or 16.18%, and the passenger train receipts, including mails and express receipts, were £137,407, against £129,107, an increase of £8,300, or 6.43%. The quantity of freight moved during the ½-year was 1,544,207 tons, against 1,281,840 tons, an increase of 262,367 tons, or 20.47%, and the receipts from this traffic were £416,137, against £334,957 in 1902, an increase of £81,180, or 24.24%. Satisfactory progress is being made with doubling the track of this portion of the system, and it is anticipated that the whole of the

work, with the exception of about five miles, will be completed during the current ½-year.

The gross receipts of the Detroit, Grand Haven and Milwaukee Ry. for the ½-year were £115,038, against £108,005 in 1902, an increase of £7,033; the working expenses were £92,408, against £85,578, an increase of £6,830; thus leaving a balance of £22,630, against £22,427; an increase of £203, compared with the corresponding ½-year of 1902. The net revenue charges for the ½-year were £36,995, against £37,174 in 1902, so that there was a net revenue deficiency of £14,365, as compared with £14,747 for the corresponding period of 1902. The number of passengers carried during the ½-year was 268,425, against 271,988, a decrease of 3,563, or 1.31%; and the passenger receipts, including mails and express receipts, were £42,704, against £41,935, an increase of £769, or 1.83%. The quantity of freight moved was 454,833 tons, against 410,282 tons in 1902, an increase of 44,551 tons, or 10.86%; and the receipts from freight traffic were £70,565, against £64,369 in 1902, an increase of £6,196, or 9.62%.

The bill introduced for the incorporation of a company under the title of "The Grand Trunk Pacific Ry. Co.," with powers to construct a railway through the Northwest Provinces of Canada to the Pacific, has been passed by both houses of the Dominion Parliament, and now awaits the royal assent. In the course of its progress through Parliament it received considerable modifications. The charter, as eventually adopted, grants powers for the construction of a railroad from the city of Moncton, in New Brunswick, through Quebec and Winnipeg, to Port Simpson, or some other port on the Pacific coast.

A bill has also been introduced by the Canadian Government which considerably varies the powers granted under the bill above mention-

ed, but as it is still under discussion in the Dominion Parliament, the directors are not at present in a position to report what will be the precise form which the bill may assume when it is ultimately passed.

The Chief Engineer reports that the expenditure for maintenance of the railway Co.'s property during the ½-year was \$173,000.00 more than during the corresponding period of 1901. The Superintendent of Motive Power reports the expenditure, mileage, &c., as follows:

Half-year ended.	Total Expenditure.	Train Mileage.	Rate of Expenses per Mile.			
			Train.	Engine.	Car.	
			Cents d. stig.	Cents d. stig.	Cents d. stig.	
June, 1903.	\$407,280	4,088,431	4.50	32.57	2.53	1.25
" " 1902.	\$421,579	8,574,169	4.88	27.78	2.57	1.02

An increase in expenditure of \$1,151,010.00, or 39.40%, compared with an increase in train miles of 1,306,235, or 15.60%.

The comparative cost of repairs per train, engine and car mile was:—

Cost per Mile.	Repairs and renewals of Locomotives.				All repairing charges, including shop machinery, tools, and marine equipment, etc.			
	1903.		1902.		1903.		1902.	
	Cents.	d. stig.	Cents.	d. stig.	Cents.	d. stig.	Cents.	d. stig.
Train	7.55	3.72	9.65	4.79	11.63	4.91	5.73	5.73
Engine	5.93	3.02	7.68	3.79	3.85	9.20	4.58	4.58
Car	0.45	0.22	0.57	0.28	0.60	0.39	0.62	0.31

The Superintendent Car Department reports the expenditure, mileage, &c., as follows:—

Half year ended.	Total Cost of repairs and renewals.		Total Miles run by Cars.		Cost per Mile.	
	Passenger.	Freight.	Passenger.	Freight.	Car.	Train.
	Dollars.	Dollars.			Cents d. stig.	Cents d. stig.
June, 1903.	16,016,379	444,776,180	160,702,559	1,412,052	0.372	12.53
" " 1902.	15,032,701	426,380,251	141,412,052	1,368	0.399	13.68

An increase in expenditure of \$68,197, or 5.95%. With an increase in car miles of 19,379,607, or 13.70%. At cost of revenue 10 first class, 10 baggage, 144 box, 35 cheese, 729 flats, and 51 cabooses were built new, and 3 cabooses were rebuilt at the Company's shops, and are included in above statement.

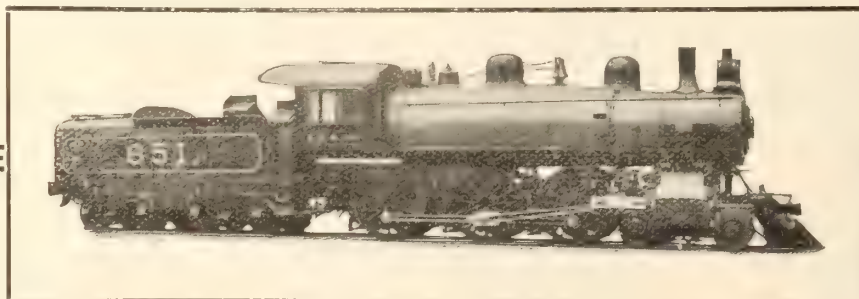
American Locomotive Company

BUILDERS OF LOCOMOTIVES FOR ALL CLASSES OF SERVICE.

President, S. R. CALLAWAY.
Vice-President, A. J. PITKIN.

Secretary, LEIGH BEST.
Second Vice-President, R. J. GROSS.

Treasurer, C. B. DENNY.
Mech. Engr., J. E. SAGUE.



SCHENECTADY WORKS, Schenectady, N. Y.
BROOKS WORKS, Dunkirk, N. Y.
PITTSBURG WORKS, Allegheny, Pa.
RICHMOND WORKS, Richmond, Va.

COOKE WORKS, Paterson, N. J.
RHODE ISLAND WORKS, Providence, R. I.
DICKSON WORKS, Scranton, Pa.
MANCHESTER WORKS, Manchester, N. H.

GENERAL OFFICE

25 Broad Street, NEW YORK CITY.

Quebec Ry., Light and Power Co.

The revenue account was as follows:

In moving the adoption of the report Sir C. Rivers Wilson said that although the company had received a very large increase in revenue, owing to the peculiar conditions of the times, there had been a corresponding increase in expenditure, which had gone far to neutralize any beneficial results which might have been expected under ordinary circumstances. Some shareholders might feel disappointed because a more profuse distribution of dividends had not attended the good fortunes of the company, but the time would certainly arrive when they would not regret the expenditure of the last few years. Since January, 1898, £2,548,000 had been distributed in dividends. The tide of prosperity might recede, but he was satisfied the Grand Trunk would derive lasting advantages from the policy pursued in prosperous times, of which they were already reaping benefit. Referring to his recent visit to Canada and the States, he saw no reason why the industries of both countries should not continue to develop. The report was adopted.

MONTMORENCY DIVISION.—The passengers carried on this division are as follows:—On the electric trains, 465,391; on the steam trains, 183,696; making a total of 649,087 passengers, or an increase of 111,154 over the previous year. The steam passenger trains made 150,160 miles,—or 20,168 miles less than the previous year; the electric cars made 150,657 miles, or 39,201 miles more than the previous year. The double track to Montmorency was completed August 25, 1901, and the service was very considerably improved. There were 99 organized pilgrimages to St. Anne de Beaupré, an increase of 19 over last year; and 53 excursions by electric trains, an increase of 25. The passenger traffic on Sundays has become so heavy that it is almost impossible to dispatch trains rapidly enough from the Quebec yard. To overcome this difficulty, I would suggest that permission be obtained from the city authorities to put a switch on St. Andrew st. and utilize the track on Ramsay st., one side of the station being used to start trains from, and the Ramsay st. track being used for arrivals. The receipts from freight, whilst showing a decrease, are very satisfactory, the decrease being entirely due to the construction of the Montmorency Cotton Co.'s mill the previous year. Special facilities are now being given at Petit Pré, Rivière des Chiens and Beaupré for the shipment of freight, such as

	1901-02.	1902-03.
Gross earnings.....	\$2,600,569.36	\$2,772,134.67
Operating expenses.....	1,688,818.38	1,758,089.74
Net earnings.....	1,001,750.98	1,014,044.93
Other income.....	6,285.22	14,665.20
Net income.....	\$1,008,036.20	\$1,028,710.13

Interest on bonds	859,700.00	859,700.00
Taxes	128,988.02	288,213.07
Total	\$ 987,688.02	\$1,056,913.07
Balance	+ 20,327.28	- 31,203.54
+ Surplus. - Deficit.		

EARNINGS AND OPERATING EXPENSES.

Gross Earnings.	1901-02.	1902-03.
Merchandise freight.....	\$1,339,325.68	\$1,339,560.20
Iron ore freight.....	253,936.26	259,549.35
Passenger	918,392.71	993,878.51
Mail	53,192.07	53,187.50
Express	57,528.09	40,676.04
*Sleeping and observation cars	2,759.85	27,506.70
Miscellaneous	64,929.70	57,306.37
Total	\$2,690,569.36	\$2,772,134.67
Operating Expenses.		
Maintenance of way and struc-		
tures.....	\$ 451,055.38	\$ 433,515.66
Maintenance of equipment	228,565.63	236,446.05
Conducting transportation	933,262.05	1,001,693.31
General expenses	75,935.32	86,434.72
Total	\$1,688,818.38	\$1,758,089.74
Net earnings.....	1,001,750.98	1,014,044.93
Percentage of expenses to		
earnings.....	62.7	63.4

*This road commenced operating its own sleeping cars on June 1, 1902, and the earnings shown above for 1902 are for but one month. The operating expenses above include the cost of rebuilding and filling bridges and putting in iron spans, which for the year ending June 30, 1902, was \$16,072.66, and for the year ending June 30, 1903, \$7,850.50.

FREIGHT TRAFFIC.

	1901-02.	1902-03.
Number of tons of		
through freight car-		
ried, earning revenue..	852,106	892,588
Number of tons of local		
freight carried, earn-		
ing revenue.....	1,459,358	1,564,977
Total tons of freight		
carried, earning revenue.	2,311,464	2,457,565
Total mileage of through		
freight	103,380,858	103,813,419
Total mileage of local		
freight	36,050,469	45,045,295
Total freight mileage, or		
tons carried one mile..	139,431,327	148,858,714

Average ton haul for		
through freight	121.3 miles	116.3 miles
Average ton haul for		
local freight.....	24.7 "	28.78 "
Average ton haul for		
all freight.....	60.3 "	60.57 "
Average amount receiv-		
ed for each ton haul..	68.241 cents	64.069 cents
Average receipts ton per		
mile for through freight	.976 "	.938 "
Average receipts ton per		
mile for local freight..	1.575 "	1.334 "
Average receipts ton per		
mile for all freight....	1.131 "	1.058 "
Total freight earnings..	\$1,593,261.94	\$1,599,109.55
Freight earnings per		
mile of road	2,772.19	2,790.43
Freight earnings per		
train mile.....	1.69	1.46

Following is the percentage of the tonnage of the principal commodities carried:—Ores, 47.40; lumber, 11.97; logs, 10.35; other forest products, 5.36; merchandise, 5.18; bituminous coal, 2.89; flour, 2.21; copper, 2.16; cement, brick and lime, 1.80; grain, 1.50; miscellaneous castings and machinery, 1.36.

PASSENGER TRAFFIC.

	1901-02.	1902-03.
Number of through pas-		
sengers carried, earn-		
ing revenue.....	126,450	146,826
Number of local passen-		
gers carried, earning		
revenue.....	455,218	494,384
Total number of passen-		
gers carried, earning		
revenue.....	581,668	641,210
Number of passengers		
carried one mile.....	32,816,802	35,327,390
Average distance carried		
per passenger.....	56.42 miles	55.095 miles
Average amount receiv-		
ed from each passenger	\$1.51852	\$1.50599
Average receipts per mile		
for through passengers	2.549 cents	2.588 cents
Average receipts per mile		
for local passengers...	3.007 "	2.899 "
Average receipts per		
passenger per mile for		
all passengers.....	2.692 "	2.733 "
Total passenger earnings	\$1,032,377.72	\$1,115,718.75
Passenger earnings per		
mile of road	1,796.28	1,946.92
Passenger earnings per		
train mile.....	1.1288	1.1187

BALANCE SHEET, JUNE 30, 1902.

Cost of road and equipment.....	\$45,424,115.10
Mackinaw Transportation Co.....	237,371.70
Lake Superior Terminal & Transfer Ry....	22,242.06
Lake Michigan and Lake Superior Ry....	7,662.68
S. S. Marie Bridge Co.....	250.00
Mineral Range Rd.....	474,795.00
Sainte Marie Union Depot Co.....	56,017.94
Western Express Co.....	25,000.00
E. W. Allen, treasurer	91,614.38
Sundry account ledger	122,788.78
Rent ledger	1,238.50
Station ledger	191,877.87
Western Express Co. (current account) ..	14,217.29
Post Office department.....	13,422.27
Material	225,196.83
Profit and loss	1,970,416.61

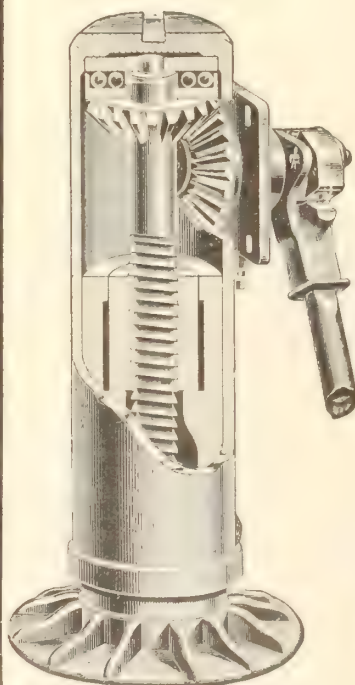
\$ 48,878,227.01

Common capital stock	\$12,000,000.00
Preferred capital stock	10,000,000.00
D., S. S. & A. consols, 4% gold bonds.....	15,107,000.00
D., S. S. & A. 1st mortgage 5% bonds.....	3,816,000.00
M., H. & O. 6% bonds of 1925.....	1,077,000.00
Income certificates	3,000,000.00
Car trust notes, 2nd Series	5,099.61
Car trust notes, 3rd Series	25,498.05
Car trust notes, 5th Series	236,213.19
Car trust notes, 6th Series	28,300.14
C.P.R. guaranteed interest advances	2,383,555.18
C.P.R. general account	198,012.58
South Shore Land Co.....	115,994.30
M., H. & O. lands	13,374.57
Bills payable.....	16,000.00
Vouchers payable.....	204,044.83
Labor	153,297.69
Coupon ticket ledger	70,319.56
Mileage ledger	5,020.60
Accrued fixed charges	267,938.33
Accrued taxes	155,558.38

\$ 48,878,227.01

During the year \$96,587.08 was charged to construction account, and \$56,873.64 was credited for the sale of property, leaving \$39,713.44. The principal items of expenditure included new sidings, \$71,113.13; new bridges and trestles, \$8,933.43; water power canal bridge, Sault Ste. Marie, Mich., \$8,166.31; new fence, \$3,827.99.

Why The Norton Ball-Bearing Jack Is Better Than Any Other.



Sectional View of Norton Jack.

THE BALL-BEARINGS

reduce the friction and increase the power of the Jack.

THE GEARS

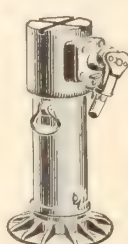
are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

THE SCREW

runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.



Foot-Lift Jack.



35 Ton Jack.



Journal Jack.

Made in 50 styles—8 to 70 tons capacity.

Manufactured by

A. O. NORTON,
COATICOOK, PROV. QUEBEC.

Stock carried by

W. H. C. MUSSEN & CO., Montreal.

Central Vermont Railway Co.

The fourth annual report of the directors of the Central Vermont Ry. Co., controlled by the G.T.R., for the year ended June 30, gives the following report of the business and operations of the line:

Miles of road operated.....	531 miles
Gross earnings.....	\$3,636,381.91
Operating expenses.....	2,874,391.77
Balance.....	\$ 761,990.14
Taxes.....	101,480.76
Net earnings.....	\$ 660,509.38
Other income—interest on securities held by the company.....	10,840.00
Total income.....	\$ 671,349.38
Interest on bonds, and rentals of leased lines.....	667,877.10
Net surplus over fixed charges.....	\$ 3,562.28

The results of operation for the year as compared with the previous year, have been as follows:—

REVENUE.	
Receipts from all sources.....	increase, \$230,230.05
EXPENDITURE.	
Conducting transportation.....	increase, \$205,003.67
Maintenance of equipment.....	decrease, 7,681.81
Maintenance of way and structures.....	increase, 38,808.27
General expenses.....	decrease, 4,060.13
Taxes.....	decrease, 2,328.15
Fixed charges.....	increase, 24.86
Improvements included in operating expenses.....	increase, 14,057.70

While the gross earnings show the satisfactory increase of \$230,230.05, the same causes which contributed to the increase in operating expenses last year are again conspicuous, and to a still greater extent in the operations for the year just closed, and as a result there is scarcely any improvement in the net earnings. The increased wages paid employees and the increased cost of fuel arising in consequence of the coal miners' strike, and failure of the contractors to furnish coal, partly from their inability to obtain cars with which to make shipments, have practically absorbed all the increased receipts. Your property has been efficiently operated and well maintained, and the cost of all additions and improvements thereto, amounting to a total of \$153,436.23, have been included in operating expenses. There has been no increase in the funded debt or capital account during the year.

The report is signed by C. M. Hays, President, and from the reports of the officials, appended, the following information is extracted:

E. H. Fitzhugh, Vice-President and General Manager, reports that the train mileage was as follows: passenger, 1,029,312 miles; freight, 1,579,018 miles; mixed, 175,412 miles; piloting, switching, light-running and work trains, 758,989 miles; total 3,542,731 miles, a decrease of 40,730 miles. During the year there had been charged to operating expenses \$153,436.23 for improvements, which was expended on the following works: new bridges, \$74,326.26; new tracks, sidings and spurs, \$9,052.55; new fuel and water stations, engine houses and turntables, \$1,433.14; new stations and warehouses, \$2,426.50; new steel rails (difference between value of old rails taken up and new rails put down), \$20,209.96; new dock and wharves, \$743.00; ballasting, \$14,218.79; new freight cars, \$26,046.27; new crossings, \$4,175.36; new interlocking signals, \$804.40. The percentage of expenses to earnings was 79.05%, as compared with 77.57% in 1901-02; the percentage of improvements included in operating expenses, to the earnings, was 4.22%, as compared with 4.09% in 1901-2. The number of tons carried one mile was 285,069,601, an increase of 16,846,515; and the earnings per freight train mile amounted to \$1.46, an increase of 12c., and the earnings per ton mile 87c., an increase of 2c. The num-

ber of passengers carried one mile was 41,943,086, an increase of 128,290; with earnings per passenger mile of 2.26c., an increase of 2c. Thirteen and a quarter miles of new 80-lb. steel rails were laid on the line between Des Rivières and St. Johns, Que., and 75.34 miles of track were retied and ballasted; seven new steel bridges were erected, and six of the released steel bridges were remodeled and erected at other points. General repairs were given to 52 engines, and light repairs to 51 engines in the St. Alban's shops; 50 new flat cars and seven cabooses had been built, and eight freight cars and one combination passenger and baggage car had been taken down, being unfit for further service. The equipment on June 30 consisted of 91 engines, 112 passenger, official, baggage, mail and express cars, and 2,125 freight and work cars.

The condensed balance sheet showed:

ASSETS.	
Cost of road and equipment.....	\$13,838,060.92
Bonds deposited with trustee.....	1,000,000.00
Materials and supplies on hand.....	146,752.88
Cash on hand and in transit.....	83,228.92
Investment in bonds.....	267,779.68
Sundry accounts collectible:—	
Due from agents.....	115,185.25
Due from U.S. and Canada, carrying mails.....	19,963.31
Due from sundry railroads and individuals.....	328,000.55
Advances fast freight line, account working fund.....	9,950.00
	\$15,808,921.51
LIABILITIES.	
First mortgage bonds.....	\$12,000,000.00
Common stock.....	3,000,000.00
Interest due.....	13,499.00
Interest accrued not due.....	76,372.40
Taxes accrued not due.....	57,340.02
Sundry accounts payable:—	
Vouchers and pay rolls.....	406,456.66
Sundry railroads and individuals.....	95,788.24
Notes payable.....	150,000.00
Profit and loss.....	9,465.19
	\$15,808,921.51

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1902-03, from July 1, 1903:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July.....	\$3,997,343.75	\$2,678,816.63	\$1,318,527.12	\$142,815.86+
Aug. 4, 076.....	153,74	2,642,051.24	1,434,102.50	71,204.05+
Sept. 3, 937.....	001.72	2,734,735.91	1,202,265.81	208,488.69-
	\$12,010,499.21	\$8,055,603.78	\$3,954,895.43	\$5,528.22+

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Aug., \$268,980.42; net earnings, \$113,315.91, against \$263,443.33 gross and \$114,407.37 net for Aug., 1902. Net earnings for two months ended Aug. 31, \$212,598.00 against \$229,947.79 for same period, 1902. Approximate earnings for Sept., \$241,526, against \$241,617 for Sept., 1902.

MINERAL RANGE RY.—Approximate earnings for Sept., \$46,587, against \$43,213 for Sept., 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Aug., \$603,560.07; net earnings, \$302,931.55, against \$579,969.22 gross and \$263,979.59 net for Aug., 1902. Net earnings for two months ended Aug. 31, \$569,565.26, against \$539,785.95, for same period, 1902. Approximate earnings for Sept., \$643,792, against \$695,365 for Sept., 1902.

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase.	Decrease.
July.....	\$3,192,608	\$2,589,422	\$603,186	....
Aug.....	3,201,511	2,719,303	482,208	....
Sept.....	3,274,245	2,885,405	388,840	....
	\$9,668,364	\$8,194,234	\$1,474,234	

The following figures are supplied from the London, Eng., office:

GRAND TRUNK RY. CO.**Revenue statement for Aug.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts.....	\$546,500	\$460,000	\$86,500	....
Working expenses.....	370,900	299,000	71,900	....
Net profit.....	\$175,600	\$161,000	\$14,600	....

Aggregate from July 1 to Aug. 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts.....	\$1,090,500	\$897,600	\$192,900	....
Working expenses.....	750,900	591,800	159,100	....
Net profit.....	\$339,600	\$305,800	\$33,800	....

GRAND TRUNK WESTERN RY. CO.**Revenue statement for Aug.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts.....	\$86,200	\$77,000	\$9,200	....
Working expenses.....	84,800	73,000	11,900	....
Net profit.....	\$1,400	\$4,000	....	\$2,600

Aggregate from July 1 to Aug. 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts.....	\$177,900	\$151,700	\$26,200	....
Working expenses.....	165,900	139,900	26,000	....
Net profit.....	\$12,000	\$11,800	\$200	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.**Revenue statement for Aug.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts.....	\$24,900	\$21,000	\$3,900	....
Working expenses.....	16,100	14,000	2,100	....
Net profit.....	\$8,800	\$7,000	\$1,800	....

Aggregate from July 1 to Aug. 31:

	1903.	1902.	Increase.	Decrease.
Gross receipts.....	\$45,100	\$40,600	\$4,500	....
Working expenses.....	31,100	27,900	3,200	....
Net profit.....	\$14,000	\$12,700	\$1,300	....

TRAFFIC RECEIPTS OF THE SYSTEM.**Aggregate from July 1 to Aug. 31:**

	1903.	1902.	Increase.	Decrease.
Grand Trunk.....	\$1,631,965	\$1,384,629	\$247,336	....
G. T. Western.....	281,011	233,452	47,559	....
D. G. H. & M.....	73,674	65,644	8,030	....
Total.....	\$1,986,650	\$1,683,725	\$302,925	....

The Pintsch Gas System.

Following is a statement of cars, locomotives, buoys, etc., using the Pintsch system of lighting to May, 1903:

	Cars.	Locomotives.	Gas Works.	Buoys and Beacons.
Germany.....	42,850	5,200	71	145
Denmark.....	45		3	21
England.....	19,200	18	87	272
France.....	6,758		27	240
Holland.....	3,487	5	10	166
Italy.....	1,537		5	15
Switzerland.....	392	2	1	
Austria.....	4,758		10	1
Russia.....	3,360	132	13	21
Sweden.....	710	43	4	2
Servia.....	216			
Bulgaria.....	98		1	
Turkey.....	114			
Egypt.....	76			118
Canada.....	202		3	97
Brazil.....	974	31	1	33
Argentina.....	1,130		10	2
Chile.....	46		2	
India.....	10,200		16	
Australia.....	2,053		13	38
United States.....	20,550		63	190
Japan.....	150		2	4
China.....			1	15
Mexico.....	121		1	
Total.....	119,031	5,431	347	1,380
Increase for year.....	6,840	434		169

A circular has been issued by the G.T.R. freight department stating that all consignments of horses, cattle and sheep for export to Great Britain and Ireland will be accepted via the ports of Boston, Mass., and Portland, Me. This order has been issued consequent on the removal of the cattle embargo by the Imperial Government.

The Railway Y.M.C.A. new building at Point St. Charles, Montreal, has been completed, and the formal opening will take place on an early date.

November Birthdays.

Many happy returns of the day to—

A. B. Atwater, Assistant to the 2nd Vice-President and General Manager G.T.R., for lines west of Detroit and St. Clair rivers, at Detroit, Mich., born at Sheffield, Ohio, Nov., 1845.

M. J. Butler, Chief Engineer Locomotive and Machine Co. of Montreal, at Montreal, born at Deseronto, Ont., Nov. 19, 1856.

F. Conway, General Freight and Passenger Agent, Kingston and Pembroke Ry., at Kingston, Ont., born at Ernestown, Ont., Nov. 19, 1850.

W. L. Lighton, Advertising Agent, Intercolonial Ry., at Moncton, N.B., born at Derby, Eng., Nov. 9, 1871.

W. Hendrie, Hamilton, Ont., railway promoter and contractor, and President of Hendrie & Co., cartage agents, G.T.R., born at Glasgow, Scotland, Nov., 1831.

William Downie, General Superintendent C.P.R., Atlantic Division, at St. John, N.B., born at Rock Currie, Ireland, Nov. 12, 1850.

R. Doyle, Trainmaster, Buffalo division, Wabash Rd., at St. Thomas, Ont., born at Dudley, Ill., Nov. 12, 1862.

L. Drago, Canadian Passenger Agent, New York Central Ry., at Toronto, born in Raleigh Tp., Kent County, Ont., Nov. 7, 1860.

C. Drinkwater, Secretary and Assistant to the President, C.P.R., at Montreal, born at Ashton-under-Lyne, Eng., Nov. 17, 1843.

C. R. Hosmer, director, C.P.R., born at Coteau Landing, Que., Nov. 12, 1851.

P. A. Peterson, Consulting Engineer, C.P.R., at Montreal, born at Niagara Falls, Ont., Nov., 1839.

J. Rennie, Master Mechanic, Caraqueet Ry., at Bathurst, N.B., born at St. John, N.B., Nov. 1, 1858.

C. Murphy, Superintendent, C.P.R., at North Bay, Ont., born Nov. 20, 1865.

W. B. Rosevear, General Traffic Manager, Algoma Central and Hudson Bay Ry., at Sault Ste. Marie, Ont., born at Belleville, Ont., Nov. 28, 1854.

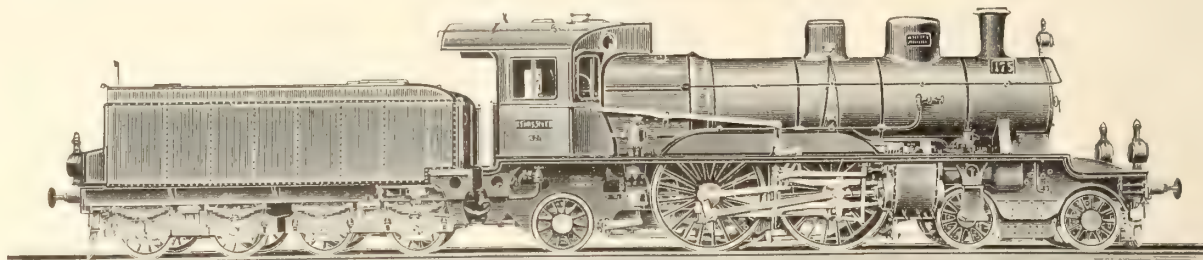
J. D. Rowe, Treasurer, Central Ontario Ry., at Trenton, Ont., born in Ameliasburg, Ont., Nov. 7, 1864.

G. H. Shaw, Traffic Manager, Canadian Northern Ry., at Winnipeg, Man., born at Smith's Falls, Ont., Nov. 25, 1859.

J. C. Shields, Superintendent, Mineral Range Rd., at Hancock, Mich., born at St. Mary's, Ont., Nov. 29, 1863.

H. P. Timmerman, General Superintendent, C.P.R., Ontario division, at Toronto, born at Odessa, Ont., Nov. 6, 1856.

Arthur White, ex-Division Freight Agent, G.T.R., at Toronto, born at Hadleigh, Suffolk, Eng., Nov. 17, 1840.

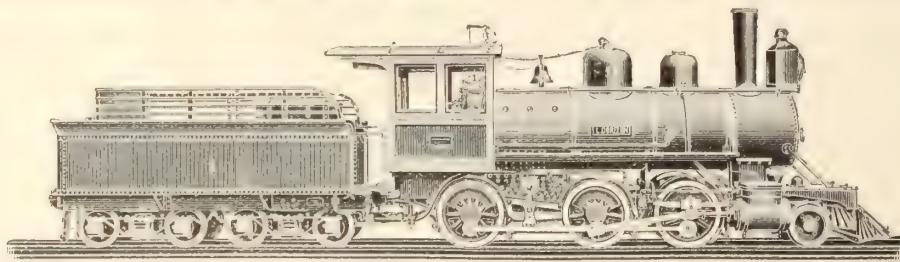


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CHEMNITZ (Germany),

Carry on the construction of **LOCOMOTIVES** of every description.

Number
of
Workmen,
5,200.



Capital,
\$3,000,000.

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Give every satisfaction to shippers

C.P.R. Annual Meeting.

Sir Wm. Van Horne, chairman of the Board, presided at the annual meeting in Montreal, Oct. 7. Sir Thos. Shaughnessy, in moving the adoption of the report which was published in our last issue, said: "The result of the year's operations was particularly gratifying notwithstanding the substantial increase in working expenses, and your directors felt justified in distributing, for the second half of the fiscal year, an additional $\frac{1}{2}\%$. Since the publication of the report a further amount of \$1,000,000 has been deposited with the Dominion Government toward the redemption of the $3\frac{3}{8}\%$ land grants bonds, leaving the balance to be paid on account of that security, \$13,500,000. The directors of the Minneapolis, St. Paul & Sault Ste. Marie Ry. Co., at a meeting held in August declared a dividend out of the earnings of that company for the last calendar year of 7% on the preferred shares, and 2% on the common shares, payable Oct. 15. Your portion of these dividends amounts to \$388,670. Although not an auspicious season for Atlantic traffic your own steamship line, established on the opening of St. Lawrence navigation, has done very well, the earnings, which are not included in the published monthly returns, but are kept separately, being more than sufficient to meet the interest on the investment. The location of the balance of the lands earned by the construction of your main line and branches in Manitoba and the Northwest has been finally and satisfactorily settled with the Dominion Government. Wet weather has had the effect of delaying the harvest in the Northwest, and

Edmonton, and all extensions, branches, etc., for 99 years at an annual rent of £44,868, which is equal to interest at 4% upon the present debenture stock issue of the C. & E. R. Co., £1,121,700; also approving the purchase by the directors of the whole of the capital stock of the C. & E. R. Co. for \$500,000.

Approving an agreement between the C. P. R. Co. and the Lindsay, Bobcaygeon and Pontypool Ry. Co. and J. B. Clark and R. H. Bowes, of Toronto, and a lease from the L., B. & P. R. Co. to the C. P. R. of the L., B. & P. Ry. when constructed from Burketon to Bobcaygeon, for 99 years at a rental of 40% of gross earnings, with a minimum rental of \$20,000 and a maximum rental of \$28,000 a year, and with an option to the C. P. R. to buy the whole of the capital stock of the L., B. & P. R. Co. within 12 years for \$200,000.

Approving an agreement with the Manitoba and Northwestern Ry. Co. for an extension of its line for 33 miles, and authorizing the directors to acquire the bonds to be issued by the M. & N. W. R. Co. for the extension, not to exceed £3,000 per mile, the interest to be guaranteed by the C. P. R. Co., and to dispose of C. P. R. consolidated debenture stock to acquire the bonds.

Approving the action of the directors in constructing a branch railway from Arcola to Regina, Assa., and authorizing the issue of consolidated debenture stock bearing interest not exceeding 4% and not exceeding \$20,000 a mile.

Authorizing the issue of £1,417,500 of consolidated debenture stock, bearing 4% interest, to pay for 15 steamships bought from Elder, Dempster & Co.

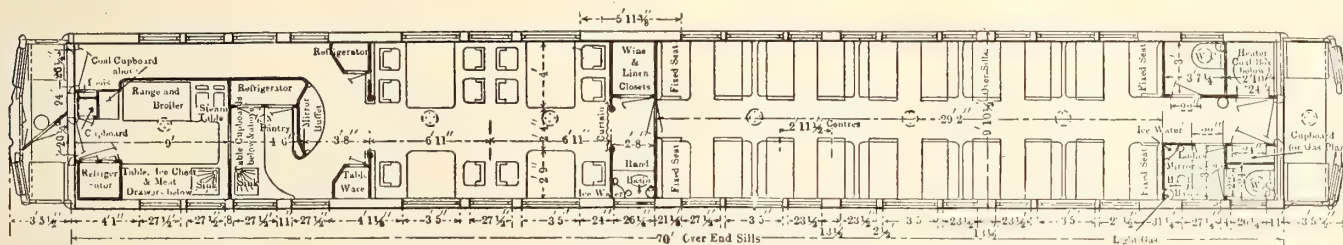
requested to continue their efforts in that direction. The classification committee also recommended a form of application for changes in or addition to the classification, to be filled up by all applicants.

The special committee appointed at previous meeting to arrange for the promulgation of the amended cartage charges arrangement, reported that they had fixed Nov. 15 as the date when the change should become effective, and that the new schedule of charges should be as per minute of meeting of July 9, except that the minimum charge for cartage of freight in classes 6-10 should be 2c. per 100 lbs., instead of $2\frac{1}{2}$ c. as previously proposed.

The Secretary reported that the regulations re marking package freight were being fairly observed, and with good results so far as local freight was concerned. The question, however, had been discussed in Freight Committee with a view to arrive at some arrangement whereby the same rule might be made to apply to import traffic by all Atlantic seaboard ports. The Secretary was instructed to communicate with the Commissioner of the Trunk Line Association and to urge that the matter be brought to the notice of all steamboat or other ocean connections in order that all packages of import traffic be marked in the same manner as required for local business.

Railway Equipment Notes.

The Midland Ry. Co. of Nova Scotia have placed an order for 10 flat cars with Rhodes, Curry & Co., Amherst, N.S.



COMBINATION DINING CAR AND FIRST-CLASS COACH, CANADIAN NORTHERN RAILWAY.

as a consequence, your grain traffic thus far this season has been less than it was a year ago, but there is every indication that the total yield, when harvesting has been completed, will reach last year's figures at least. The crops in Ontario are better than for many years past. Excellent progress has been made, up to the present time, with the vast works of improvement undertaken by your company during the past two years. The enlargement of the yards at most of the divisional points west of Lake Superior will facilitate the movement of traffic, and the grade reductions now in hand, and that will be completed before the crop commences to move next fall, will have the effect of increasing the haulage capacity of your locomotives by 50 to 100% over 1,200 miles of your line in the busiest sections of the country."

The report having been adopted, a number of resolutions were passed as follows:

Ratifying the purchase by the directors of a controlling interest in the Kingston and Pembroke Ry. Co., comprising 22,602 shares of preferred and 35,182 shares of common stock, constituting about 83% of the whole capital stock, and authorizing the directors to enter into working arrangements with the K. & P. Co. pending the execution of a lease of its railway to the C. P. R. Co.

Approving a lease from the Calgary and Edmonton Ry. Co., demising to the C. P. R. Co. the railway and branches which the C. & E. R. Co. has been authorized to construct, whether constructed or to be constructed, including the main line from Fort McLeod to

Authorizing the expenditure on capital account of \$5,000,000 for additional rolling stock as required, and of \$4,500,000 for increased terminal facilities, grade reductions and additions to property other than new lines.

The following directors were elected: Sir W. C. Van Horne, R. B. Angus, E. B. Osler, for four years; Sir T. G. Shaughnessy, Lord Strathcona, T. Skinner, C. H. Mackay, for three years; C. R. Hosmer, Hon. R. Mackay, D. McNicoll, R. G. Reid, for two years; Hon. G. A. Drummond, Sir Sandford Fleming, G. R. Harris, W. D. Matthews, for one year.

At a subsequent meeting of the board Sir W. C. Van Horne was re-elected chairman, and Sir Thos. G. Shaughnessy President. The following were appointed as the executive committee: Sir W. C. Van Horne, Chairman; Sir T. G. Shaughnessy, Lord Strathcona, R. B. Angus, E. B. Osler.

Canadian Freight Association.

A general meeting was held at Montreal Oct. 14. G. E. Johnson, Cape Breton Ry., was elected an active member. The classification committee presented printed proof of supplement 1 to classification 12 with some amendments, which was approved as amended, the supplement to be submitted to the Governor-in-Council for approval, in lieu of ruling circular 13, which is to be withdrawn. The special committee appointed at previous meeting to urge the Government to approve classification 12 reported progress, and were

The C. P. R. shareholders at the recent annual meeting voted \$5,000,000 to provide additional rolling stock as required.

The locomotive under construction at the works of the Locomotive and Machine Co., of Montreal, is for the British Columbia Mills, Timber and Trading Co.

The Canadian Locomotive Co. has applied to the Kingston, Ont., city council to grant it the exemption from taxes enjoyed by its predecessor in title, which became insolvent.

The Toronto, Hamilton and Buffalo Ry. has placed an order with the Locomotive and Machine Co. of Montreal, for four locomotives, two of which are to be delivered in Dec.

The Canadian Northern Ry. Co.'s private car Atikokan has been assigned for the use of President Mackenzie. Another private car, the Athabasca, has been built in the U.S. for Vice-President Mann.

The G. T. R. between Sept. 14 and Oct. 23 placed orders for the following equipment: 191 standard box cars at its Montreal shops; 5 standard switching engines at its Montreal shops; one standard switching engine at its Port Huron, Mich., shops.

The Canadian Northern Ry. received the following equipment from Sept. 1 to Oct. 14: six freight engines from the Canadian Locomotive Co., Kingston, Ont.; 189 box cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S.; 165 box cars, 60,000 lbs. capacity, also from Canadian builders.

The Canadian Northern Ry. has had plans prepared for a combination dining car and 1st class coach for service west of Winnipeg. The floor plan is given on pg. 375. The car is 70 ft. long, with seating accommodation for 40 in the coach portion, 12 seats in the dining portion, a 9 ft. kitchen and a 4½ ft. pantry. No order has been placed.

The C.P.R. placed the following orders for equipment between Sept. 9 and Oct. 13: two 1st class cars, two tourist cars and five snow ploughs at its Hochelaga shops; 119 box cars, 11 refrigerator cars, 40 stock cars, 141 flat cars, and 14 coal cars at its Perth shops; six vans, one ore car, two locomotive flats, and two charcoal cars at its Farnham shops.

The C.P.R. received the following equipment between Sept. 9 and Oct. 13: four passenger locomotives from Scotland; three 1st class cars and one boarding car from its Hochelaga shops; two 1st class passenger cars, 18 refrigerator cars and 40 stock cars from Rhodes, Curry & Co., Amherst, N.S.; 11 stock cars and 317 flat cars from its Perth shops; eight vans from its Farnham shops.

The Canada Atlantic Ry. is building at its Ottawa shops 20 box cars, some of which are completed. Following are the general dimensions, etc.: capacity, 40,000 lbs.; weight, 28,200 lbs.; length over sheeting, 34 ft. 2 in.; height, rail to top of running board, 12 ft. 5 in.; width, 9 ft. 1 in.; journals, 7 in. by 3¼ in.; wooden bodies, diamond trucks, steel axles, cast iron brake shoes, wrought iron door fasteners, ventilated iron doors, double pine roof, steel spiral springs, metallic brown paint, and Westinghouse brakes.

We are advised that the first of the 20 compound freight locomotives ordered by the C.P.R. from the Saxon Engine Works, Chemnitz, Germany, was shipped Sept. 17, and was expected to reach Montreal by the end of Oct. These locomotives, like those from Scotland, are shipped in parts, and are erected at Montreal by fitters sent out by builders. An illustration of the first of these 20 locomotives was given in our last issue. The general dimensions are:

Weight on drivers	128,000 lbs.
Total weight	160,000 lbs.
Diameter of cylinders	22 in. and 33 in.
Stroke of pistons	26 in.
Diameter of drivers	63 in.
Type of boiler—Radial stayed extended taper course.	
Working steam pressure	210 lbs.
Heating surface—total	2,420 sq. ft.
Tubes—number	328
“ material	Swedish steel
“ outside diameter	2 in.
“ length	13 ft. 2½ in.
Firebox—length	9 ft. 6 in. inside
“ width	3 ft. 5½ in.
“ material	Krupp steel
Grate area	33.2 sq. ft.
Tank capacity for water	5,000 imp. gall.
Coal capacity	10 tons
Tender frame	10 in. steel channels

The special equipment includes Krupp axles, driving, truck and tender wheels, steel crank pins, connecting rods and side rods, nickel steel piston rods and cast steel piston heads, and Simplex brake beams.

The Canadian Locomotive Co., Kingston, Ont., has received an order from the Department of Railways, for four narrow gauge locomotives for the Prince Edward Island Ry. Following are the general dimensions:

Gauge	3 ft. 6 in.
Type of engine	4-4-0
Fuel used	Bituminous coal
Weight in working order, drivers	44,800 lbs.
“ total	70,000 lbs.
Wheel base of engine, rigid	7 ft. 9 in.
“ total	19 ft. 8 in.
“ and tender	39 ft. 0½ in.
Length over all, engine and tender	About 48 ft.
Width	9 ft. 4½ in.
Height	11 ft. 10½ in.
Heating surface, fire box	90 sq. ft.
“ tubes	710
“ total	836
Diameter of driving wheels	54 in.
Material of “ centres	Cast iron
Diameter and length of driving journals	6½ in. x 8 in.
Diameter of cylinders	15 in.
Stroke	20 in.
Type of boiler—Radial stay, extended wagon top.	

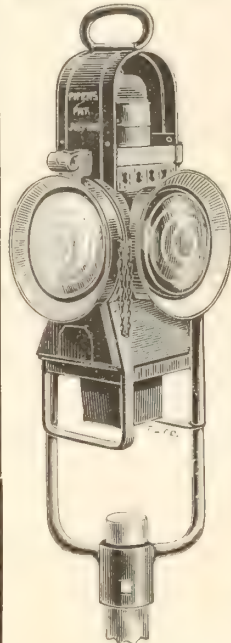
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Will not catch
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Made of Iron,
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Copper or
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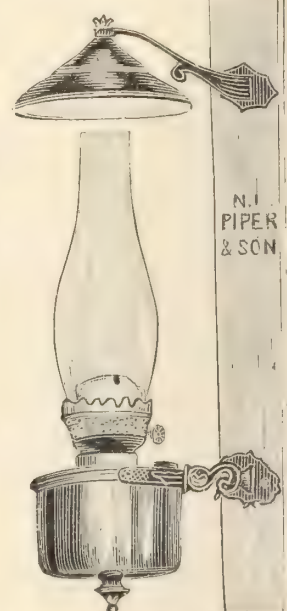
Made of
Copper,
nickel
plated.

Fitted with
portable
fount with
feeder-cap.

Large
Burner.

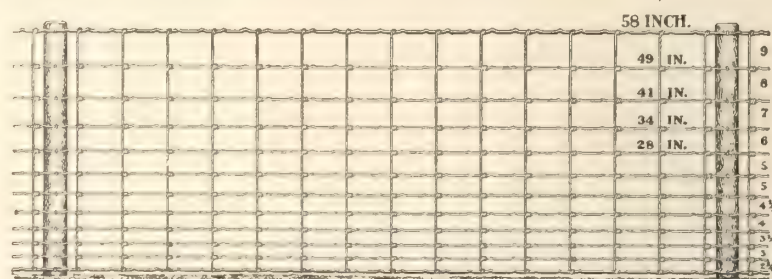
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clear,
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Size of fire box	33 in. x 66½ in.
Number of tubes	170
Diameter	1½ in.
Length	9 ft. 6 in.
Brakes	Westinghouse—American
Kind of packing	Metallic
Air signal	Westinghouse
Bell ringer	Pneumatic
Weight of tender, loaded	About 55,300 lbs.
Capacity of tank	2,200 imp. gal.
Style of tank	U shape
Coal capacity	2½ tons
Style of truck	4-wheel
Diameter of wheel	30 in.
Kind of wheel	Wrought iron centres, steel tired
Diameter and length of journal	4 in. x 6 in.

The Canadian Locomotive Co., Kingston, Ont., has received an order for the construction of five locomotives for the Intercolonial Ry. Following are the general dimensions:

Gauge	4 ft. 8½ in.
Type of engine	4-6-0 passenger
Fuel used	Bituminous coal
Weight in working order, drivers	116,000 lbs.
total	150,000 lbs.
Wheel base of engine, rigid	14 ft. 1 in.
“ “ total	24 ft. 4 in.
“ “ and tender	50 ft. 10½ in.
Length over all, engine and tender	About 60 ft.
Width “ “	10 ft. 0 in.
Height “ “	14 ft. 8 in.
Heating surface, fire box	165 sq. ft.
tubes	1,885
total	2,050
Diameter of driving wheels	69 in.
Material centres	Cast steel
Diameter and length of driving journals	9 in. x 12 in.
Diameter of cylinders	20 in.
Stroke of “	26 in.
Type of boiler—Radial stay, extended wagon top.	
Working pressure of boiler	200 lbs.
Number of tubes	277
Diameter “	2 in.
Length “	13 ft. 0 in.
Injectors	Sifting
Safety valves	I.C.R. style
Brakes	Westinghouse—American
Kind of packing	Metallic
Weight of tender, loaded	107,000 lbs.
Capacity of tank in imperial gallons	4,500
Style of tank	U shape
Coal capacity	8 tons
Style of truck	4-wheel
Diameter of wheel	36 in.
Kind of wheel	Wrought iron centres, steel tires
Diameter and length of journal	5½ in. x 10 in.

Canadian Annual Financial Review.

The third volume of this carefully prepared book of information respecting Canadian securities, compiled by W. R. Houston, was recently issued from the publishing offices, 22 St. John st., Montreal. It contains 436 pages giving information respecting a large number of Canadian companies, or companies outside Canada in which Canadians are interested as investors. Of companies connected with transportation interests the current volume gives the annual reports, together with the particulars relating to dealings in the stocks, of nine railway companies, two being C.P.R. subsidiaries; 18 street railways, five being outside Canada, but in which Canadians are interested; four navigation companies, five telegraph and telephone companies, and nine general companies, more or less connected with transportation interests.

“Notes on Track” is a volume of 1,214 pages, with 620 illustrations, compiled by W. M. Camp, M. Am. Soc. C.E., editor of the Railway and Engineering Review, Chicago, and published by him at 7418 Parnell ave., Chicago, at \$3 a copy. The book is generally recognized by railway men as the standard work on track and maintenance of way. An examination of the various subjects dealt with shows that it covers the entire field of track construction and maintenance, and the manner in which the various subjects have been dealt with shows that it not a mere theoretical compilation of how things should be done, but that it gives the results of the observations of a practical man who has had experience of the work. The illustrations are numerous, and are thoroughly illustrative of the text. The work is one which should be in the hands of all having to do with track work.

MAINLY ABOUT PEOPLE.

S. Rogers, President of the Queen City Oil Co., Toronto, died there recently, aged 69.

J. R. Moyes, formerly a bridge inspector on the G.T.R., died recently in London, Ont., aged 78 years.

J. Sutton, accountant of the Mechanical department of the I.C.R., died at Moncton, N.B., recently, aged 71.

J. Crighton, son of W. L. Crighton, advertising agent of the I.C.R. at Moncton, N.B., died there recently.

R. Hosker, at one time C.P.R. locomotive foreman at Ignace, Ont., died suddenly at Fort William, Ont., recently.

A. R. Creelman, K.C., solicitor of the C.P.R., and Mrs. Creelman returned to Montreal from Great Britain Oct. 17.

P. S. Archibald, C.E., Moncton, N.B., is one of the incorporators of the Maritime Engineering Co. (Ltd.), of Moncton.

Mrs. G. H. Charlton, mother of H. R. Charlton, advertising agent of the G.T.R., Montreal, died at St. John's, Que., Oct. 3.

W. Shaughnessy, son of Sir Thos. Shaughnessy, President C.P.R., has gone into residence at Trinity College, Cambridge, Eng.

H. O'Connor, trainmaster, C.P.R., Winnipeg, recently returned to his duties after a two months' absence on account of ill-health.

Wm. Michael, who retired from the G.T.R. after 45 years' service in the car shops at Montreal four years ago, died there recently.

C. F. Sise, President Bell Telephone Co., Montreal, has been elected a director of the Canadian Westinghouse Co., Hamilton, Ont.

W. H. Kennedy, agent for the Lake Erie and Detroit River Ry. at Kingsville, Ont., since the opening of the line, died there Oct. 16.

D. W. Campbell, Superintendent C.P.R. Atlantic steamships, Montreal, is suffering from typhoid fever, the second attack in two years.

M. Fitzgerald, who was one of the contractors on the C.P.R. construction at Megantic, Que., died at Sherbrooke, Que., Oct. 6.

A. Sutherland, ticket agent Reid Newfoundland Co. at St. John's, Nfld., has been absent from his duties for some time on account of illness.

C. McLean, of McLean, Kennedy and Co., shipping agents, etc., Montreal, was struck by a street car there Oct. 16, and seriously injured.

Miss Van Horne, who was seriously ill early in Oct. at the residence of Sir Wm. Van Horne at St. Andrews, N.B., is reported to be recovering.

Principal Galbraith, of the School of Science, Toronto, has been given the honorary degree of LL.D. by Queen's University, Kingston, Ont.

Capt. C. Troop, shore superintendent of the C.P.R. Atlantic Steamships at Montreal, was confined to bed through illness during the early part of Oct.

Miss Bessie W. Quick, second daughter of J. E. Quick, General Baggage Agent G.T.R. Toronto, died there Oct. 16. She was buried at Port Huron, Mich.

A. Fontaine, of the I.C.R. freight offices, Montreal, was presented with a case of cutlery by the members of the staff on the occasion of his recent marriage.

Col. J. M. Underwood, who died recently at Portland, Ore., aged 61, was engaged in the construction of the C.P.R. in the Mountain sections near Banff, B.C.

W. R. Baker, assistant to the Second Vice-President and General Manager C.P.R. at

Montreal, sailed from New York for a holiday trip to England, recently.

Miss A. Long, daughter of Thos. Long, Secretary Northern Navigation Co., was married in Toronto, Oct. 1, to T. Wheeler, barrister-at-law, St. Paul, Minn.

Mrs. O. W. Sanford, wife of the late H. Sanford, Vice-President of the Adams Ex. Co., who died at Newcastle, Ont., in July, left an estate valued at \$260,000.

H. Paton, President of the Shedden Forwarding Co. (Ltd.), Montreal, has given \$25 towards the fund for furnishing the new building of the Railway Y.M.C.A. in Montreal.

P. Gifkins, General Manager Dominion Atlantic Ry., Kentville, N.S., recently made a trip to Vancouver, B.C., in company with the Vice-President and Secretary of the company.

H. Elliott, of St. Paul, Minn., has been elected President of the Northern Pacific Ry., succeeding C. S. Mellen, who is now President New York, New Haven and Hartford Rd.

C. S. Mellen has resigned his position as President of the Northern Pacific Ry. Co., and has been appointed President of the New York, New Haven and Hartford Rd., New York.

D. R. McDonald, railway contractor, Alexandria, Ont., has been selected as the Conservative candidate at the forthcoming election for the Dominion Parliament in Renfrew county.

John Hendry, President of the Vancouver, Westminster, Yukon and Northern Ry., has been elected Vice-President of the Canadian Manufacturers' Association for B.C. for 1903-04.

Capt. J. Tymon, of the Toronto str. Island Queen, was presented with a smoking set and other gifts by the patrons of the boat during the summer season between Toronto and the island.

J. H. Lockhart, chief clerk in the I.C.R. electric light department, Moncton, was married recently to Miss H. Seaman, daughter of Geo. Seaman, trackmaster, I.C.R. at Moncton, N.B.

T. B. Hawson, who resigned from the G.T.R. accountants' department at Chicago, Ill., where he had been since 1890, has removed to New York. Mr. Hawson came to the G.T.R. from England in 1853.

W. J. Orr, Superintendent of the Railroad Hospital, St. Thomas, Ont., was presented with a gold watch by the St. Thomas Railway Hospital Association on his retiring from that position on his removal to Hamilton, Ont.

Miss Florence Geiger, daughter of E. A. Geiger, General Superintendent Brockville, Westport and Sault Ste. Marie Ry., had a very narrow escape from being killed by being run down while cycling in Brockville, Ont., recently.

W. H. Moore, Assistant to the President Toronto Ry. Co., and Assistant Solicitor Canadian Northern Ry., has returned to Toronto, having recovered from the effects of an operation for appendicitis which he recently underwent at Ottawa.

C. R. Boucher, formerly division engineer on the staff of the Temiskaming and Northern Ontario Ry., is engaged on survey work for the Grand Trunk Pacific Ry. at Heron Bay, Ont., under G. Knowlton, division engineer at North Bay, Ont.

General Sir Ian Hamilton, on a recent visit to Kingston, Ont., stated that Sir P. Girouard, the Canadian officer who is in charge of the Government railways in the Transvaal and Orange River colonies, was “the Sir Wm. Van Horne of South Africa.”

J. D. Mackay, of the maintenance survey department of the Natal Government railways, who died recently at Pietermaritz-

burg, Natal, South Africa, was for a number of years engaged upon construction work on the C.P.R. in the Northwest.

H. P. Thomas, of the Montreal office of the C.P.R. Atlantic Steamships, has been presented with a dress suit case by his fellow-clerks on the occasion of his leaving Montreal to take a position in the office of the Company's Pacific Steamships at Hong Kong.

A. McClelland, G.T.R. station agent at Newmarket, Ont., was presented with a gold watch by the business men of the town, and with a Past Master's jewel and a Past Principal's jewel by his Masonic brethren, on leaving that town to take a similar position at Orillia, Ont.

F. G. Jonah, who has been appointed Chief Engineer of the St. Louis, Brownsville and Mexico Rd. at Corpus Christi, Texas, is a native of Cloverdale, N.B., and was assistant engineer in charge of construction on the Oxford and New Glasgow section of the I.C.R.

H. Wilkinson, Master Mechanic of the Brockville, Westport and Sault Ste. Marie Ry., has resigned his position and retired

into private life after nearly 50 years of railway service; the last sixteen of which was with the B., W. and S.S.M. Ry. as Master Mechanic.

E. S. Dimmock, who has been appointed Manager of the Cape Breton Electric Co., and of the Sydney and Glace Bay Ry. Co., has for the past four years been General Manager, appointed by the U.S. courts, for the Receiver of the Bay City Consolidated Ry., Bay City, Mich.

F. Walsh, for 22 years connected with the Bell Telephone Co. at Winnipeg, Man., was presented with an address and a purse of \$20 gold pieces by the staff, on his resignation of the managership of the Northwest Department at Winnipeg. Mr. Walsh proposes to reside in future in California.

C. Crozier was presented with a gold watch chain by the employees of T. B. Escott & Co., on leaving that firm after 14 years' service; and with a gold locket and a Masonic emblem by his fellow commercial travellers, on leaving, London, Ont., to enter the C.P.R.'s dining car service.

Professor W. K. Hatt, of Purdue University, Ind., who has been appointed by the U. S. Department of Agriculture to investigate the mechanical properties of the commercial timbers of the U.S., is a native of Fredericton, N.B., and was at one time on the engineering staff of the I.C.R. at Moncton.

Hon. Alfred Lyttelton, K.C., M.P., who has been appointed Colonial Secretary in the Imperial Government, was one of the arbitrators in the dispute between the Reid Newfoundland Co. and the Newfoundland Government in connection with the transfer of the Newfoundland Ry. back to the Government.

A. O. Norton, manufacturer of lifting jacks, has recently been entertaining a large party of his friends at his summer place "The House that Jack Built," on Lake Massawippi, Que. Harry A. Norton, who recently returned from an extended trip through Russia, has been spending a few days at his old home, Coaticook, Que.

E. H. Crean, city ticket agent C.P.R., Quebec, died there Oct. 4, after a somewhat lingering illness. He had been absent from his

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duties for some time owing to ill-health, and only returned to Quebec a few days before his death. He entered the C.P.R. service in 1893, having previously been secretary to A. R. McDonald, while superintendent of the I.C.R. between St. Flavie and Levis, Que., and acted as city ticket agent for the C.P.R. at Sherbrooke and Quebec.

A. Wilcox, who has been appointed Chief Train Dispatcher, Canadian Northern Ry., at Port Arthur, Ont., entered railway service in 1881, his record being: 1881 to 1883, clerk and operator Toronto, Grey and Bruce Ry. at Owen Sound, Ont.; 1883 to 1886, operator C.P.R., at Winnipeg; 1886 to 1887, relieving dispatcher same road, at Winnipeg; 1887 to 1890, assistant dispatcher, same road, at Moose Jaw, Assa.; 1890 to Aug., 1903, Chief Train Dispatcher, same road, at Moose Jaw, Assa.

F. W. Foster, who has been appointed Bristol Traffic Agent C.P.R., Atlantic Steamship lines, was born at Sunderland, Durham Co., Eng., in 1871, and entered transportation service in the office of Culliford, Clark & Co., ship brokers, Liverpool, Eng. Prior to the opening of the Manchester Ship Canal Jan., 1894, he moved to Manchester, and until 1896 had charge of the business of the Neptune Steam Navigation Co. of Sunderland there, leaving to join the Liverpool staff of Elder, Dempster & Co. Subsequently he was given charge of the Bristol office of the company in Feb., 1900, and continued in that position until his present appointment.

Alex. Manning, a prominent contractor, died in Toronto Oct. 12. His first important work was the building of the York county highways in Ontario in partnership with the late A. P. Macdonald, of Hamilton. He then had contracts on the old Welland canal, and also several railway contracts in the United States. He was a member of the firm of Manning, Macdonald & Co., which built Section B of the C.P.R. from Keewatin to Cross Lake, Ont., under contract from the Dominion Government, the other members of the firm being Hon. P. McLaren, of Perth, Ont.; the late J. J. Macdonald, the late James Isbister, and John Shields, now of Ashcroft, B.C. He then had contracts in company with Hon. P. McLaren at Fenelon Falls, Ont., on the Trent canal, and at Perth on the Tay canal. In 1888 he took over the interest of his son, the late Frank Manning, in the partnership with Randolph Macdonald in connection with a contract for the Don improvements in Toronto. This partnership was continued until 1902, during which time the firm carried out a number of contracts, including sections 9 and 13 of the Soulages canal.

J. W. Higginson, who has been appointed Assistant Superintendent G.T.R. at Island Pond, Vt., was born at Newport, R.I., Oct. 12, 1846, and entered railway service Oct., 1879, serving until April, 1890, as messenger, sectionman, switchman, telegraph, freight brakeman, baggageman, freight conductor, and chief clerk to Superintendent on the Chicago division, Illinois Central Rd., since which his record has been: April, 1890, to Dec., 1891, trainmaster same road at Cairo, Ill.; Dec., 1891, to Feb., 1892, chief clerk to General Superintendent same road at Chicago; Feb., 1892, to June, 1892, Assistant Superintendent Louisiana division same road at McComb City, Miss.; June, 1892, to April, 1893, Superintendent Louisiana division and Superintendent of Terminals same road at New Orleans, La.; April, 1893, to April, 1896, Superintendent of Terminals same road Chicago, Ill.; April, 1896, to April, 1899, Superintendent same road at La Salle, Ill.; April, 1899, to June, 1901, Superintendent of Transportation same road; June, 1901, to June, 1903, General Superintendent of Transportation Illinois Central and Yazoo & Mississippi Valley Rys. at Chicago.

TRANSPORTATION APPOINTMENTS.

Algoma Central and Hudson Bay Ry.—B. F. Fackenthal has been appointed Receiver for Speyer & Co., of New York, and has charge of the operations of the line. T. J. Kennedy remains as General Superintendent, and W. C. Barr remains as Manager of Steamships. W. B. Rosevear, General Traffic Manager, has been granted two months' leave of absence. J. C. Ulrich, Superintendent of the Michipicoten branch, has been given an extended leave of absence, the branch having been closed for the winter. The position of Engineer of Maintenance of Way, heretofore held by G. W. Stadly, has been abolished.

Brockville, Westport and Sault Ste. Marie Ry.—S. Rothwell has been appointed locomotive foreman, and will discharge the duties heretofore performed by H. Wilkinson, Master Mechanic, resigned.

Canada Atlantic and Plant Steamship Line.—J. A. Flanders, heretofore Passenger Agent, has been appointed General Agent, succeeding E. H. Downing, agent, resigned. Office, Boston, Mass.

Canada Atlantic Ry.—J. E. Walsh, Assistant General Passenger Agent, having resigned, the office has been abolished and all matters pertaining to the passenger and baggage departments are to be referred to the general passenger department. W. P. Hinton is General Freight and Passenger Agent.

Canada Atlantic Transit Co.—W. H. Burk, agent at St. Paul, Minn., has been assigned the duties of the agency at Minneapolis, also succeeding H. L. Moore, resigned. Office, 212 South Fourth st., Minneapolis, Minn.

Canadian Northern Ry.—A. Wilcox has been appointed Chief Train Dispatcher of the 1st, 2nd and 3rd districts, Eastern division. Office, Port Arthur, Ont.

Canadian Pacific Ry.—W. J. Singleton, heretofore Superintendent, district no. 2, Eastern division, has been appointed Superintendent, district no. 3, Ottawa and Quebec sections and branches, succeeding J. E. A. Robillard. Office, Montreal.

E. Reynolds, heretofore passenger conductor at Quebec, has been appointed Assistant Superintendent, district 3, Eastern division, Quebec section and branches. Office, Quebec.

F. M. Spaidal, heretofore Trainmaster, district 4, Eastern division, Ottawa, has been appointed Superintendent, district 2, Eastern division, Montreal terminals and Montreal Jct. and St. Luc Jct. to Smith's Falls, vice W. J. Singleton, transferred.

C. Murphy, heretofore Superintendent at North Bay, Ont., has been appointed Superintendent district 2, Ontario division, with office at Toronto, vice J. Manson, "transferred." District 2 has been extended to include Toronto and Hamilton terminals, Leaside Jct. to Toronto Junction, Toronto union station to Toronto Junction, and Toronto to Hamilton, being transferred from district 1.

F. G. Martyn, heretofore Trainmaster at London, has been appointed Assistant Superintendent district 2, with office at Toronto, vice D. R. Bell, Superintendent of Terminals, transferred.

D. R. Bell, heretofore Superintendent of Terminals at Toronto, has been appointed Trainmaster at London, Ont., vice F. G. Martyn, transferred.

R. Preston has been appointed Master Mechanic, Ontario division, with office at Toronto Junction, succeeding J. R. Spragge, who has been appointed road foreman of locomotives between Smith's Falls and Toronto.

C. Kyle has been appointed Master Mechanic, Lake Superior division, with office at North Bay, Ont., succeeding R. Preston, transferred to Toronto.

J. R. Nelson, heretofore Secretary to the President, has been appointed Superintendent,

district 1, Lake Superior division, with office at North Bay, Ont., vice C. Murphy, transferred to Toronto.

H. Rindal, heretofore transitman in the C.P.R. engineer's office at Winnipeg, has been appointed resident engineer at Fort William, Ont., succeeding J. L. Houston, resigned.

O. O. Winter has been appointed yard agent at Winnipeg, Man.

N. E. Winter, heretofore of the Calgary and Edmonton Ry., has been appointed Division Engineer of the Western Division, with office at Calgary, vice A. S. Davis, resigned.

F. F. Busteed, heretofore Division Engineer, Pacific division, has been appointed Superintendent, district 3, Pacific division, succeeding D. G. Ross, who resigned owing to ill-health. Office, Nelson, B.C.

C. E. Cartwright has been appointed acting Division Engineer, Pacific division, with office at Vancouver, vice F. F. Busteed, transferred.

E. V. Skinner, heretofore General Eastern Agent, has been appointed Assistant Traffic Manager with jurisdiction over freight and passenger business in the territory included in the General Eastern Agency. Office, 353 Broadway, New York.

Cape Breton Electric Co., and Sydney and Glace Bay Ry.—E. S. Dimmock has been appointed Manager, vice T. H. Creedon, who has returned to Stone & Webster's Boston office.

Cape Breton Ry.—G. E. Johnson has been appointed General Manager, succeeding J. Downer, who was Chief Engineer as well as General Manager during the last stages of the construction of the line.

Cumberland Ry. and Coal Co.—E. Laflamme, Assistant General Manager of the Company's railway, has resigned.

Detroit and Toledo Shore Line Rd.—S. W. Knapp has been appointed Superintendent. Office at Detroit, Mich.

Grand Trunk Ry.—J. R. McIntosh has been appointed boiler inspector, succeeding Jas. Black, resigned. Office, Montreal.

J. Devine has been appointed Assistant to Superintendent at Allandale, Ont., vice L. G. Coleman, transferred, with supervision over matters pertaining to transportation on districts 11, 12, 13 and 14, and such other duties as may be assigned to him.

C. S. Cunningham has been appointed Assistant Superintendent of district 16 (between Toronto and Hamilton), districts 17, 18 and 19, and district 20 (between Harrisburg and Tillsonburg Junction), vice W. E. Costello, transferred. Office, London, Ont.

H. C. Martin has been appointed Chief of Tariff Bureau in charge of freight tariffs and percentage divisions of lines west of the Detroit and St. Clair rivers, working under the directions of the freight officers in charge of that territory. Office, Chicago, Ill.

W. E. Costello, heretofore Assistant Superintendent middle division at London, Ont., has been appointed Assistant Superintendent district 25 (Main Line) and district 26, with jurisdiction over all matters pertaining to transportation. Office, Battle Creek, Mich. J. Ehrke, Trainmaster district 26. Office, Battle Creek, Mich., will report to the Assistant Superintendent. X. H. Cornell, Master of Transportation, and J. R. Williams, Trainmaster district 25, C. S. and M. districts 27, 28, and 29, offices, Durand, Mich., will report to the Superintendent as heretofore.

J. C. McFadzean has been appointed agent at Detroit.

G. J. Blanche will act as agent at Milwaukee, Wis., until further notice, vice H. Shackell, deceased.

J. D. Cameron, ex-Attorney-General of Manitoba, has been acting as solicitor at Winnipeg for the G.T.R. system for some months, and will act for the G.T. Pacific Ry. Co. as soon as that corporation is organized. His

title will probably be Associate Counsel at Winnipeg.

Great Northern Ry. of Canada.—J. B. Musgrove, Master Car Builder, has resigned, and the position has been abolished.

Great Northern Ry. (U.S.).—O. S. Bowen has been appointed resident engineer at Spokane, Wash., with jurisdiction over the Kalispell and Spokane division, and the Spokane Falls and Northern Ry. The S.F. and N. Ry. includes the Red Mountain Ry., the completed sections of the Vancouver, Victoria, and Eastern Ry., and the other G.N. Ry. lines in the mountain districts of B.C.

Great North-Western Telegraph Co.—H. P. Dwight, since 1881 General Manager of the G.N.W.T. Co., and since 1893 President and General Manager, has been re-elected President.

I. McMichael, hitherto Manager of the Minneapolis and Northwestern districts Western Union Telegraph Co., at Minneapolis, Minn., has been appointed General Manager.

Halifax and Southwestern Ry.—D. B. Hanna, Third Vice-President Canadian Northern Ry., is in charge of the operation of this railway, which includes the old Central Ry. of Nova Scotia, the line under construction from Halifax to Yarmouth, and the Caledonia branch. J. Brignell, heretofore General Manager of the Nova Scotia Central, is Superintendent; R. M. J. McGill remains as General Passenger and Freight Agent and Auditor; C. O. Foss is Engineer of Maintenance, and T. R. McLeod, formerly of the Inverness Ry. and Coal Co.'s railway, is locomotive foreman. Offices, Bridgewater, N.S.

Kettle Valley Lines.—H. W. Warrington has been appointed Superintendent, and G. W. Fairweather General Freight and Passenger Agent.

Pere Marquette Rd.—H. Dean, heretofore commercial agent at Detroit, Mich., has been appointed division freight agent. Office, Detroit.

T. L. Pierce, travelling freight agent at New York, has been appointed commercial agent at Detroit, succeeding H. Dean, promoted.

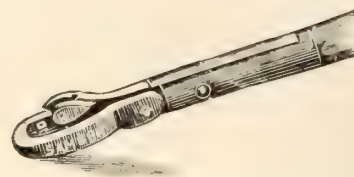
Temiskaming and Northern Ontario Ry.—The engineering staff on the construction of this railway from North Bay, Ont., on Oct. 1, comprised: Chief Engineer, W. B. Russell; Assistant Chief Engineer, E. E. Perreault; divisional engineer between miles 60 and 90, R. Laird, with F. C. Jackson, C. W. Doherty and C. L. Russell under him as sectional engineers; divisional engineer between miles 90 and 112 and northern terminals, R. A. Galbraith, with A. McGougan and R. Simpson under him as sectional engineers; in charge of track centres, R. H. Harcourt; location survey north of mileage 112 towards Abitibi waters, T. S. Hay. Manager of Construction for A. R. Macdonnell, contractor, H. Doheny.

Wabash Rd.—J. Bell has been appointed inspector of fuel and locomotives, Buffalo division. Office, St. Thomas, Ont.

J. Manson, who has been succeeded as C.P.R. Superintendent district no. 2 at Toronto by C. Murphy, has been granted three months' leave of absence on account of ill-health. He will visit Europe.

J. R. Nelson, who has been appointed C.P.R. Superintendent at North Bay, Ont., entered railway service in 1892 as junior clerk in the purchasing department, afterwards being appointed stenographer. He was subsequently transferred to the office of the Vice-President as stenographer to the chief clerk, and latterly as secretary to Sir Thos. Shaughnessy, then Vice-President, remaining with Sir Thomas when he succeeded to the Presidency. From 1901 to the date of present appointment he was chief clerk in the President's office.

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WRITE FOR CATALOGUE

Canadian Ticket Agents' Association.

The seventeenth annual meeting was held at Sydney, N.S., Oct. 12. The trip was participated in by a party of 128, of whom 30 were ladies. This was a considerable falling off in numbers from 1902, when the Washington party numbered 210. The following members went on the trip: A. H. Baird, C.P.R., Paris; W. F. Bleecker, C.P.R., Marmora; E. R. Blow, C.P.R., Whitby, and wife; W. Booth, C.P.R., Trenton, and wife; J. L. Boyes, G.T.R., Napanee, and wife; A. C. Brown, C.P.R., Guelph, and wife; R. H. Carney, G.T.R., Sault Ste. Marie; John Carter, C.P.R., Sundridge, and wife; B. Caswell, C.P.R., Smith's Falls, and wife; J. D. Chipman, C.P.R., Halifax; R. Clanahan, C.P.R., Glencoe, and wife; Jas. Clark, C.P.R., Renfrew, and wife; C. R. Coleman, C.P.R., Truro; R. Cox, C.P.R., Enterprise; R. J. Craig, C.P.R., Cobourg, and wife; A. J. Davis, C.P.R., Port Perry, and wife; C. M. Dawson, I.C.R., Truro; G. H. Doherty, Niagara River Line, Toronto; E. R. Dransfield, Webster's Ticket Agency, Toronto, and wife; F. B. Edgecombe, C.P.R., Fredericton, and wife; J. S. Fleming, I.C.R., Newcastle, N.B.; J. J. Forbes, G.T.R., Stratford, and wife; C. H. Foss, G.T.R., Sherbrooke, and wife; A. Grant, C.P.R., Perth, and wife; A. E. Gregory, Kawartha Lakes Navigation Co. (Ltd.), Lindsay, and wife; J. P. Hanley, G.T.R., Kingston; F. M. Hawley, G.T.R., Cobourg; F. R. Hodgins, G.T.R., Clinton, and wife; C. E. Horning, G.T.R., London; T. Howard, C.P.R., Hastings; E. H. Jackson, C.P.R., Simcoe, and wife; J. H. Jackson, C.P.R., Georgetown; W. Jackson, C.P.R., Clinton, and wife; R. A. Jamieson, C.P.R., Arnprior; J. H. H. Jury, G.T.R., Bowmanville, and wife; G. D. La Course, G.T.R., Berlin; T. Long, C.P.R., Port Hope, and wife; W. A. MacCallum, C.P.R., Buckingham, and wife; R. MacFarlane, jr., C.P.R., Durham; W. H. C. Mackay, C.P.R., St. John, N.B.; W. H. MacFarlane, C.P.R., Paisley, and wife; W. McIlroy, C.P.R., Galt; E. McLaughlin, C.P.R., Napanee; S. McMorine, C.P.R., Richmond; M. McNamara, G.T.R., Walkerton, and wife; P. J. Maher, G.T.R., Glencoe; J. I. Martin, Canada Atlantic Ry., Pembroke; T. C. Matchett, C.P.R., Lindsay; J. D. Meekison, C.P.R., Strathroy, and wife; H. W. Mills, G.T.R., Sarnia; W. H. Montgomery, G.T.R., Galt, and wife; W. B. Moorhouse, C.P.R., Sault Ste. Marie, and wife; C. E. Morgan, G.T.R., Hamilton; J. Murchison, C.P.R., Lucknow; C. A. Nettleton, C.P.R., Penetanguishene; L. Peine, C.P.R., New Hamburg, and wife; R. P. Perry, C.P.R., Bracebridge; Lieut.-Col. E. G. Piché, C.P.R., Joliette, and wife; J. I. Robinson, C.P.R., Sydney; A. J. Ross, C.P.R., Berlin; T. C. Sims, G.T.R., Little Current, and wife; D. Smith, C.P.R., Tilbury, and wife; J. R. Tierney, C.P.R., Arnprior, and wife; M. N. Todd, Galt, and wife; B. Travers, G.T.R., Paris, and wife; B. H. Turner, C.P.R., Little Current, and wife; Dr. H. A. Turner, C.P.R., Millbrook, and wife; J. C. Witchelo, C.P.R., Parry Sound, and wife.

The following were guests of the Association:—L. B. Archibald, Superintendent Parlor, Sleeping and Dining Cars, I.C.R., Halifax; B. H. Bennett, General Agent, Chicago and Northwestern Ry., Toronto; O. Chevrier, Travelling Agent, I.C.R., Montreal; W. T. Dockrell, Travelling Passenger Agent, C.P.R., Toronto, and wife; J. W. Donald, D.P.A. Chicago & Alton Rd., Buffalo; C. B. Foster, District Passenger Agent, C.P.R., St. John, N.B.; G. W. Hardisty, D.P. & F.A. Northern Pacific Railway, Montreal; D. W. Hatch, T.A. Atchison, Topeka and Santa Fe Ry., Montreal; J. B. Lambkin, Assistant General Passenger Agent, I.C.R., Halifax; J. M. Lyons, General Passenger Agent, I.C.R., Moncton, wife and daughter; J. McKenna,

Travelling Passenger Agent, C.P.R., St. John, N.B.; M. G. Murphy, Travelling Passenger Agent, C.P.R., St. John, N.B.; A. H. Notman, Assistant General Passenger Agent, C.P.R., Toronto; C. A. Pipon, Passenger Agent International Mercantile Marine Co., Toronto; H. A. Price, Assistant General Passenger Agent, I.C.R., Montreal, and wife; J. Quinlan, District Passenger Agent, G.T.R., Montreal; A. G. Rainnie, T.A. Time Table Distributing Co., St. John, N.B.; T. Ridgedale, C.F. & P.A. Chicago, Great Western Ry., Montreal; Dr. and Mrs. Shaw, Clinton, Ont.; A. J. Taylor, C.F. & P.A. Chicago, Milwaukee & St. Paul Ry., Toronto, and wife; A. C. Turpin, G.A. Rock Island System, Toronto; G. B. Wyllie, T.P.A. Illinois Central Rd., Buffalo, and the Editor and Publisher of THE RAILWAY AND SHIPPING WORLD.

The party assembled at Montreal on Oct. 8, and at one o'clock a large number of them lunched on the s.s. Tunisian as the guests of Allan Steamship Line. Shortly after 7 p.m., a special Intercolonial train, consisting of seven sleeping cars, two dining cars, a colonist car for the employees, and a baggage car, was backed into the Bonaventure Station. As on the Washington trip, Secretary de la Hooke had carefully located the berths in advance; the cars were conspicuously numbered, and the party was accommodated without a hitch. Montreal was left at 8 p.m., and at breakfast time next morning, Oct. 9, the train was past Rimouski. A good view was had of the St. Lawrence, and then the scenery of the Metapedia Valley and of the south shore of the Baie de Chaleur was much enjoyed, the day being bright and pleasant. After luncheon on the dining cars everything went well until about 4 p.m., when the train came to a sudden stop amid breaking of glass, etc. The passengers hurried out to find they had been in a head-on collision at Patterson's siding, 7 miles east of Beaver Brook, and 3 miles west of Newcastle, N.B., with express train no. 35, from Moncton to Campbellton. The ticket agents' special and train 35 had orders to cross at Patterson's siding. Train 35 arrived there first, passed the switch at the east end of the crossing track, and came to a stand on the main line. As the conductor got off he saw the special coming; shouted to some trackmen to turn the switch at the west end of the siding to let the train in, and started a brakeman for the switch. But it was too late; the switch was passed and the special rushed on towards no. 35. The driver of the special, seeing that a collision was inevitable, put on the emergency brake, reversed and jumped; the fireman following him. In the meantime the driver of no. 35 had started to back, but had not been able to get up any speed; however, it reduced the force of the collision considerably. The special drove no. 35 back about four car-lengths before they both came to a stop. The locomotive of the special had its pilot smashed and one wheel of the forward truck derailed. A draw-bar of one of the dining cars was broken, some of the vestibules were a little knocked about, and the china, etc., in the dining cars was badly smashed. The locomotive of no. 35 was badly stove in from front and otherwise injured, but no damage was done to the train. Providentially no one on either train was injured, with the exception of J. Forbes, of Stratford, who had a couple of teeth knocked out, and W. M. McIlroy, of Galt, who was standing in a vestibule and had an arm slightly cut. H. H. Bray, Chief Dispatcher of the I.C.R. at Campbellton, who was on the special, having accompanied it from that point, secured a velocipede car from a track gang working at the siding, and proceeded on it to Newcastle, where a locomotive was waiting to take the special east. He returned very quickly with this locomotive and an auxiliary car, and by 5.30 p.m. the special had been started again with the fresh loco-

motive, the damaged dining car being transferred to the rear of the train. The special's locomotive, which was in collision, but only slightly damaged, was left behind for train 35. Owing to the delay occasioned by the collision it was found impossible to reach Halifax until after midnight; the train was run on to a siding at Bedford, about 7 miles west of Halifax, about 1 a.m., and the party had a quiet rest there.

In reference to the collision we have been officially informed that the special train and train 35 both had orders to cross at Patterson's siding; train 35 occupied the main line close to the west end of the siding; the special should have stopped at the west switch and entered the siding, but instead overshot the switch and collided with train 35. The driver of the special was considered at fault and has been disciplined.

On Saturday, Oct. 10, the train was run into Halifax, arriving there about 8 a.m., and the party went to their hotels, most of them putting up at the Halifax and the Queen's. At 10.30 the party went on board the ferry steamer Chebucto, which is owned by the town of Dartmouth, and which was chartered for the occasion by the Halifax Board of Trade. A very pleasant cruise was enjoyed on the harbor, while the mayor and others discoursed on the magnificence of the harbor, its depth of water, etc., until suddenly there was an ominous sound below and the steamer came to a stop, having run on to the red buoy shoal, owing to the captain having gone in between the red buoy and McNabb's island. Coming so soon after the railway collision some people were naturally a little nervous, but J. B. Lambkin, of the I.C.R., started a rollicking chorus and anything in the nature of a panic was averted. The captain, seeing he could not get the Chebucto off, whistled for assistance. Several tugs came to the rescue, and the passengers were taken off and treated to a further trip on the water. The Chebucto was pulled off at high water at night by a couple of tugs, when it was found she had sustained about \$1,000 damage. The captain was suspended. The incident was very annoying to the Haligonians, who treated their guests most hospitably, and there seems no excuse for it having happened, as the captain should undoubtedly have kept outside the buoy. In the afternoon the party divided up, some going to a baseball match, others driving about the city, etc. At 7 o'clock they again boarded the special train and reached Truro at 9, where most of them attended the Coldstream Guards band concert. Truro was left again about midnight, and about 8 a.m. Sunday, Oct. 11, the special pulled into Sydney, where the majority stayed at the Sydney hotel, though a considerable number had to find quarters at other hotels and some returned to their berths in the sleeping cars, not being able to get accommodation in town.

THE ANNUAL MEETING

was held at the Court House, Sydney, on Oct. 12 at 9 a.m., President McNamara in the chair.

The Secretary-Treasurer's report dealt with the general work of the Association during the year, and especially referred to the following matters: The death on Oct. 5 of E. H. Crean, C.P.R. city ticket agent at Quebec. The appointment of F. W. Churchill, town ticket agent at Collingwood, to represent the Association at the meeting of the American Association of General Passenger and Ticket Agents at New Orleans, in response to an invitation from the latter Association. At the last annual meeting the C.T.A. Association had 168 paid-up members. Mainly through the exertions of Vice-President Mackay and other Maritime Province members 29 new members have joined; three members in arrears have paid them up; but as 26 members failed to pay their subscriptions for 1903, and

two others resigned owing to being no longer eligible, the result is a net gain of three in the membership for the year, but it is hoped that many of those who have not paid for the current year will yet do so. Members are urged to remit their subscriptions to the Secretary-Treasurer early in January in each year so that they may receive the official organ of the Association, THE RAILWAY AND SHIPPING WORLD, regularly from the commencement of each year. The receipts during the year were \$734.31, and the expenditure \$423.90, leaving a balance of \$310.41, with no outstanding liabilities.

The special committee, composed of F. W. Churchill, S. B. Morris, W. McIlroy, W. Buntton and W. H. McFarlane, appointed at Washington, D.C., last year to inquire into the feasibility and advisability of the Association adopting an insurance or benefit fund, reported that F. W. Churchill had been appointed chairman and S. B. Morris secretary. Having made inquiries from the Dominion Insurance Department and taken legal advice, they have ascertained that it would be necessary to be incorporated by special act of Par-

liament before the Association could conduct an insurance department in connection with the Association, the cost of which would be very considerable. The committee are, therefore, of the opinion that the proposed insurance scheme is not at present feasible. Accompanying the report was a letter from Mr. Churchill which stated that the committee, through the courtesy of several officials of the Lehigh Valley, the West Shore, the Boston and Maine and other railways had placed before them considerable information as to various schemes in operation on their several roads. Some of these are in the nature of clubs, while others came within the scope of the insurance act and would necessitate special legislation, and furthermore appear unsuitable on other grounds. The Honorary Counsel has expressed his opinion that a funeral benefit scheme might be organized which would not infringe on the Insurance Act, and Mr. Churchill suggested that an effort be made to carry out the scheme along these lines with a funeral benefit of say \$100 or \$150, each member to pay \$1 with his annual subscription so as to minimize clerical labor.

President McNamara then said: In the many addresses heretofore delivered at our annual gatherings, nearly all subjects of general interest to our Association have been covered so well that but little remains to be dealt with outside the working details of our organization. We are well treated by the important corporations that we have the honor to represent, and I know that the members generally will support the executive in thanking the chief officers of the great transportation companies of Canada for the courtesies extended to our Association. Individually also, we have no just cause of complaint in dealing with our official superiors, for we find by experience that those who attend to their duties are always well treated, and that even the auditors relax the stern frown of official severity when our returns go in promptly and prove correct.

During the past year there has been great activity in the special department with which we are connected. The railways of Canada carried in 1902 a total of 20,679,974 passengers, an increase of 2,293,652 over the previous year. The modesty peculiar to ticket

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agents prevents us from asserting that this increase is altogether due to our efforts. But we may be pardoned for claiming a small share in its development. If the officials of the passenger department were not always on the alert, the result would not be so satisfactory. The railways of Canada are putting forth great effort to increase their business. The men at the top are always awake, and they have no love for sleepy agents.

The details of traffic give an average of four trips during the year for every man, woman and child in the Dominion. This is certainly a remarkable illustration, both of the activity of our people and their ability to spend money in railway travel. It represents, in a considerable degree, the growth of luxury in the country, and also the increasing inducements to travel placed before the public by the railways. The managers are constantly improving the facilities of travel and adding to the attraction of their routes by luxuries that tempt people to use them in a constantly increasing degree. Last year the Canadian railways earned in passenger traffic the very large sum of \$22,600,091. The increased business of last year was proportionately the greatest in the history of Canada's railway development. It is partly due to the natural increase of population and wealth in the country, but may fairly be ascribed, in some measure, to improving facilities of travel and increasing efficiency of management. Since the organization of the Canadian Ticket Agents' Association in 1887 the volume of railway travel in Canada has more than doubled. The companies we represent carried in that year 2,000,000 passengers, and last year, as we see, they carried over 20,000,000. What share of this remarkable development may stand to our credit, we leave to the judgment of our official superiors. But we certainly do claim credit for vigorously presenting the advantages of the roads we represent to the travelling public. Each in his own locality enjoys the opportunity of keeping the company he serves in touch with the community he lives in. His personality humanizes the institution and gives people a living interest in its prosperity. It is quite certain that the railways of Canada are much more popular at present than when their business was confined exclusively to railway stations.

It may not be amiss to point out to the chief officers of our respective companies that an opportunity exists for a still further improvement that would be much appreciated by the travelling public, and that is, the erection of new stations on the branch lines. Most of these stations are ancient, and by no means attractive. When the train is late and the station master out of humor they are anything but lovely places to spend an evening in. Their cheerless aspect leads to undue patronage of the station hotels. When increased travel results from increased comfort to travellers we may be sure that new stations on the branch lines would give a satisfactory increase in the business of the companies. It is an improvement that would be greatly appreciated by the general public, and especially by commercial travellers, who are a numerous and deserving body of railway patrons.

I regret having occasion to point out that the United States railways have not yet resumed the payment of commissions to Canadian ticket agents. We sell their tickets and contribute to their revenue without receiving any payment for our services. Possibly the system formerly prevailing went too far. When competition was active some of the roads paid more than the service was worth. We would be satisfied with a reasonable compensation, and as a matter of justice we are entitled to it. Some people consider it nonsense to talk of justice to the great railway corporations of the United States. Perhaps

it is. But in a democratic community there is no guarantee of permanency on any other basis. The gentlemen at the head of these great corporations recognize the principles of business ethics at least quite as well as other men, and I am satisfied that if they realized the fact that Canadian ticket agents receive no payment for the business we handle for them in Canada, they would be willing to pay something for the service we render them. It is only a fair business proposition, and experience in dealing with the managers of our own roads, justifies the belief that if the matter were fully considered by the United States companies, they would see that it is unfair to accept our services without paying for the business we send them. This is a grievance to our Association, and I trust that the managers of the United States roads may be willing to consider it.

Present appearances indicate an immediate and large increase in railway development in Canada. The proposed new transcontinental road interests our Association in the prospect it presents of a large increase in railway travel. Although we are not politicians in our associated capacity, one can see individually, that the new road is of vast interest to the whole country, and of special interest to the people of the Maritime Provinces. It opens out a grand view of the teeming wealth of the western prairies finding an outlet to the markets of Europe through the seaports of Halifax, St. John and Sydney. It does not necessarily mean the decay of the Intercolonial Ry., for who can doubt that in a few years there will be traffic enough for both. Our maritime friends are to be congratulated. They are getting a vast increase in their railway facilities without much expense to themselves, and will soon see their magnificent harbors crowded with shipping, and vieing with Portland and New York in handling the products of the western prairies. There is a splendid future in store for the maritime ports, and it would seem to us, living mostly in Ontario, that the way of wisdom for those living down by the sea is to get all the railways that other people are willing to build for them, and then exert themselves to get more railways. The people of Ontario contributed \$22,064,442 in municipal and provincial bonuses towards building railways within their own Province, besides their share of the \$178,022,186 paid by the Dominion Government. When the western prairies are fully developed, it will take more than two railways to bring their products to the ocean. This is the growing time, and it may not hurt our maritime friends to hear that in the opinion of Ontario business men they should strain every nerve, and use every influence within their resources, to direct the traffic of the prairies to their own ports instead of letting it find an outlet through the ports of our United States neighbors. This is practical patriotism, and as the Canadian Ticket Agents' Association is an eminently practical and patriotic organization, it may not be amiss to place our views on this important question before those who are now struggling to find a solution of the railway problem for the whole Dominion. We want all the railways we can get, and when they are all built there will still be room for more. It may be said that this is a question of freight traffic rather than of passenger travel, but wherever there are railways there are travellers, and in addition to the immediate interests of our own business, we must never lose sight of the fact that we are citizens of Canada, and bound by public duty to do what we can to promote the general welfare of our country.

In our annual trips since the organization of our Association, we have visited all important points in Canada from Winnipeg to the Atlantic ocean. We now have nothing left but the Pacific coast and the Klondike. Each place visited has its own interest, but none surpasses either the place of our present meeting, or

the country we came through in reaching it. Here it was that just 300 years ago the adventurous sons of France made their first settlement in the new world. And it was the scene of many historic struggles before settling down to its present peaceful condition. The lovely valley of Acadia through which we passed in getting to Sydney is one of the most renowned spots in the history of the new world. Three times it was conquered by the British, and three times restored by treaty to the French. Less than a hundred and fifty years ago it was the scene of one of the most terrible tragedies in history. Eighteen thousand men, women and children were seized by troops and scattered to the four winds of heaven. Their property was confiscated, their houses and crops burnt before their eyes, and themselves shipped off in such haste that families and friends became separated, never to meet again. It is on this incident that Longfellow founds his beautiful poem of Evangeline. The railway is the apostle of commerce, and its agents are the missionaries of material progress. But in passing through the land of Evangeline we may be pardoned for pausing a while to pay a tribute of affectionate memory to the history of the Acadians. They were a gallant race. And now we find the descendants of those among them who escaped joining with their conquerors in building up a new nation in British America, which secures to the descendants of those who met in deadly strife the blessings of liberty united with security in more just and equal proportions than exist in any other country on the face of the globe. The present union of British and French in Acadia is a splendid tribute to the power of peace and justice.

The President's remarks were received with great approval, and it was resolved that they be printed and bound and supplied to each member, and to the passenger agents of the railways in Canada and the United States.

W. Jackson moved, seconded by C. E. Morgan, that in the best interests of this Association, some change should be made in the mode of selecting the place of annual meeting, and that for the meeting of 1904 the decision be left in the hands of the executive committee for that year, it being understood that no place will receive consideration that has not extended an invitation; to which transportation has not been promised, and at which hotel accommodation has not been guaranteed. After a very full discussion the motion was carried unanimously.

Invitations for the annual meeting of 1904 were read as follows:—From G. J. Charlton, General Passenger Agent of the Chicago & Alton Ry., extending an invitation to their members, should they meet at St. Louis, to use that line en route to and from that city. From H. E. Tupper, General Agent, Passenger Department of the Denver and Rio Grande Rd., at New York, stating that S. K. Hooper, General Passenger Agent, will be glad to welcome the members to Colorado next year, and will extend the courtesies of the line if the pass agreement will allow. A. C. Turpin, General Agent of the Chicago, Rock Island and Pacific Ry. at Toronto, read a telegram from L. M. Allen, General Passenger Agent, saying he would be glad to extend the courtesies of the line, should Denver be selected for the meeting. J. A. Richardson, Canadian Passenger Agent of the Wabash Rd. at Toronto, telegraphed offering the members transportation to St. Louis in April, 1904.

The following officers were re-elected unanimously:—President, M. McNamara, Walkerton, Ont.; 1st Vice-President, W. H. C. McKay, St. John, N.B.; 2nd Vice-President, C. E. Morgan, Hamilton, Ont.; 3rd Vice-President, W. H. Harper, Chatham, Ont.; Secretary-Treasurer, E. de la Hooke, London, Ont.; Honorary Counsel, J. H. Flock, K.C., London, Ont.; Auditor, R. J. Craig,

10,698,658

Cobourg, Ont. Dr. Shaw, of Clinton, Ont., was elected Honorary Physician. The following were elected by ballot as members of the Executive Committee—W. Jackson, Clinton, Ont.; W. Bunton, Peterboro', Ont.; J. W. Ryder, Toronto, Ont.; Dr. Turner, Millbrook, Ont.; W. McIlroy, Galt, Ont. At a subsequent meeting of the Executive Committee W. Bunton was re-elected chairman.

The thanks of the Association were tendered to the several railway and steamship lines for their courtesy, and to the Royal Cape Breton Yacht Club, the Sydney Club and the Union Club, St. John, for extension of their privileges to the Association. Special votes of thanks were passed thanking J. I. Robinson, of Sydney, for his efforts in connection with the meeting, and to W. Jackson for having acted as Secretary owing to Mr. de la Hooke's unavoidable absence, and to the various U.S. railway officers who have tendered transportation for the 1904 meeting.

It was unanimously resolved that the members greatly regret the inability of Secretary-Treasurer de la Hooke to be present, and hope that he may soon be restored to good health, and that he may be able to be present at the next annual meeting. He was voted \$175 for his services for the year.

In the afternoon the party had a sail on Sydney harbor as guests of the town council and board of trade, and visited the Dominion Iron and Steel Co's plant. In the evening the annual dinner was held at the Sydney hotel. In addition to most of the members of the Association and the male guests whose names have already been given, there were present the mayors of Sydney and North Sydney, a number of town councillors, J. R. McIsaac, Traffic Manager of the Dominion Iron and Steel Co.; C. M. Odell, Chief Engineer of the Sydney and Louisburg Ry., and others. President McNamara occupied the chair, Vice-Presidents Mackay and Morgan being vice-chairmen. The ladies were entertained in an adjoining room, and just after the viands had been disposed of Mrs. Smith, of Tilbury, Ont., came forward and on their behalf thanked J. B. Lambkin, of the I.C.R., for his courtesies to them. The toast list was as follows: The King; General Passenger Agents, responded to by J. M. Lyons, A. H. Notman, J. B. Lambkin, C. B. Foster, and J. R. McIsaac; Mayor and Corporation of Sydney, responded to by Mayor Richardson, Deputy-Mayor Hanrahan and Councillor Ross; our Association, responded to by J. I. Robinson; our guests, responded to by ex-Mayor Crowe and Mayor McKenzie of North Sydney; Cape Breton and its industries, respond-



SAULT STE. MARIE CANAL.

SEALED tenders addressed to the undersigned and endorsed "Tenders for Dredging on Sault Ste. Marie Canal, will be received at this office until 16 o'clock on the 11th day of November, 1903, for taking out the shoals in front of the upper channel of the canal.

Plans and specifications of the work can be seen on and after the 2nd day of November, 1903, at the office of the Chief Engineer of the Department of Railways and Canals, Ottawa, and also at the Canal Office, Sault Ste. Marie, Ontario. Forms of tender can also be obtained at the places named.

In the case of firms there must be attached to the tender the actual signatures of the full name, the nature of the occupation and residence of each member of the same.

The department does not bind itself to accept the lowest or any tender.

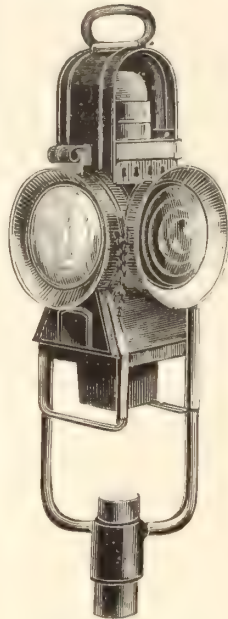
L. K. JONES, Secretary.

Department of Railways and Canals, Ottawa, 27th October, 1903.

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ed to by A. Dick and C. M. Odell; Travelling Passenger Agents, responded to by W. T. Dockrill and G. B. Wylie; the ladies, responded to by W. Bunton. W. McIlroy, of Galt, and Messrs. Grant and Horrigan sang very acceptably.

On Tuesday, Oct. 13, the special train with the party was taken over the Sydney and Louisburg Ry. Owing to rain it was found impossible to visit the Marconi wireless telegraph station or the Dominion Coal Co.'s mines at Glace Bay, and the train went through to Louisburg, where the visitors were met by representatives of the town and taken to the hall, where they were entertained at luncheon. Mayor Lewis and Warden Lavette welcomed them on behalf of the municipalities. President McNamara expressed the thanks of the visitors, and a vote of thanks was passed to Traffic Manager McIsaac. After a visit to the Dominion Coal Co.'s shipping pier, Sydney was reached again about 5 p.m., and at 7 o'clock the special started for St. John, where it arrived at 11.30 on Wednesday, Oct. 14.

At St. John the visitors were welcomed by W. Downie, General Superintendent, C.P.R.; L. H. Ross, Superintendent of Terminals, I.C.R.; E. S. Smiley, Division Freight Agent, I.C.R., and other local transportation officials. A C.P.R. commissariat car was attached to the train; the I.C.R. locomotive was replaced by a C.P.R. one, and after a short stop the special proceeded to Westfield Beach, on St. John river, where a clam-bake, with lobsters, and many other good things, was much enjoyed. St. John was reached again at 4.30, when the party divided up between the Royal, the Dufferin and other hotels. In the evening many of them saw the Belle of New York at the theatre.

On Thursday, Oct. 15, St. John was left at 8.30 a.m. on the Star Line Steamship Co's boat Victoria, on the St. John river, for Fredericton. This trip was undoubtedly the most enjoyable portion of the whole outing, the scenery on this magnificent river being very picturesque. The lower portion of the river, which is very winding, has high, well-wooded banks, which were rich in autumnal tints. Luncheon was served on board. At Upper Gagetown the steamer was met by the Mayor and a number of other Frederictonians. At 4.30 the steamer reached Fredericton, and the visitors were taken for a drive about the city. In the evening they attended a reception in the Legislative Chamber, where they were received by Mayor and Mrs. Palmer, and other prominent residents. Dancing was indulged in, refreshments were served, President McNamara thanked the entertainers, and Mayor Palmer responded. At 11.30 p.m. the special train, which had been brought up from St. John, was again boarded, and it proceeded via the C.P.R. to Montreal, which was reached early in the afternoon of Friday, Oct. 16, when the party dispersed.

The following presentations were made during the trip on behalf of the members and the guests who accompanied them: J. M. Lyons, General Passenger Agent, I.C.R., pair cut glass decanters, with silver labels, in oak case; H. A. Price, Assistant General Passenger Agent, I.C.R., 2 sets silver-mounted carving knives and forks, in case; J. B. Lambkin, Assistant General Passenger Agent, I.C.R., cut glass decanter, with silver label; A. H. Notman, Assistant General Passenger Agent, C.P.R., pair gold cuff links; C. B. Foster, District Passenger Agent, C.P.R., pig-skin suit case; R. S. Orchard, Manager Star Line Steamship Co., silk umbrella; conductor of sleeping cars, silver match box.

The I.C.R. provided a splendid special train for the trip. The seven sleepers were all thoroughly up-to-date and the dining car service was excellent. The various officials were assiduous in their attentions. H. A. Price,

Assistant General Passenger Agent at Montreal, and Mrs. Price, travelled with the party from Montreal to Moncton, and again from Moncton to Montreal. O. Chevrier, travelling passenger agent, was on duty from Montreal to Moncton. E. Price, Superintendent, met the train at Campbellton, and H. H. Bray, chief dispatcher, accompanied it from there over his division. At Moncton, E. Tiffin, General Traffic Manager, and J. E. Price, General Superintendent, welcomed the visitors, and J. M. Lyons, General Passenger Agent, and his wife and daughter, joined them and remained with them till they left Fredericton. L. B. Archibald, Superintendent of Sleeping and Dining Cars, also accompanied them from Moncton to Halifax. J. M. Jarvis, Superintendent of the Halifax & St. John district, and Y. C. Campbell, Superintendent of the Sydney and Oxford districts, travelled with them over portions of their districts; and L. S. Brown, Chief Dispatcher at New Glasgow, accompanied them from there to Sydney and return. The C.P.R. was represented by A. H. Notman, Assistant General Passenger Agent, Toronto, and C. B. Foster, District Passenger Agent, St. John, N.B., to whom the party were much indebted.

President McNamara made a number of capital speeches and proved an excellent presiding officer. Ex-President Jackson, who acted as Secretary, was most attentive and efficient. Very great regret was expressed at the enforced absence of Secretary de la Hooke, who is looked on as the father of the Association, and has never missed a meeting before. J. I. Robinson, of Sydney, and F. B. Edgecombe, of Fredericton, were indefatigable in carrying out the local arrangements at those places.

While the trip was enjoyable in many respects, it will hardly be looked on as one of the most successful the Association has had. A mistake was undoubtedly made in selecting Sydney as the place of meeting, as the hotel accommodation there, while very good for a place of the size, was inadequate. The harbor is very fine, and the steel works are interesting, but outside of that there is no attraction for visitors, and it cannot be looked on as a convention town. The rain, which lasted the whole time the visitors were in Sydney, proved a great drawback. The majority of the party seemed to think that there was too much railway travelling and that the trip took too long, and this had doubtless much to do with the unanimous decision of the Association to leave the selection of the next place of meeting in the hands of the executive committee.

C.P.R. Betterments, Construction, Etc.

General.—At the annual meeting held Oct. 7, the shareholders voted \$4,500,000 to provide increased terminal facilities, grade reductions and additions to property other than new lines, as required according to the discretion of the directors.

Northern Colonization Ry.—On the extension from Labelle to Nominique, Que., 22 miles, grading is completed. On Oct. 14 track had been laid for 14 miles from Labelle, and ballasting had been completed on 13 miles. It was expected to have the extension completed by Dec. 1. The work is in charge of F. S. Darling, Divisional Engineer of Construction, Montreal, and C. Mitchell is assistant engineer in charge. D. R. McDonald & Co., Glengarry, Ont., are the contractors. (July, pg. 245.)

At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted for the construction of a line from Lake Nominique to La Lievre, 35 miles, \$112,000.

Lake Superior Division.—During this year there has been laid on this division 60 miles of

heavy rails, replacing 60-lb. steel. The whole of the main line from Chalk River to Fort William, Ont., 751.6 miles, has now been relaid with heavy rails. Ballasting has been done on 150 miles and a large number of trestle bridges filled in. At Red Sucker, an immense trestle on the north shore of Lake Superior, a diversion has been made and a temporary bridge built alongside the old structure. It has been filled in right up to the stringers this year, 300,000 cubic yards of material having been placed in it. In 1902 a start was made to lengthen the passing tracks between Chalk River and Fort William, and this year the work has been completed. A number of intermediate passing tracks have also been constructed. All these passing places east of Cartier are 3,000 ft. long, and those west of Cartier, 2,500 ft. long.

The whole of the yards and buildings at North Bay are being reconstructed and rearranged to meet the requirements of the increasing business. A stone station is being built east of the present building; a 2,000-ton capacity ice-house, new coal pockets, stores building, carpenter's and car repairer's shops and an 18-stall stone roundhouse and machine shop. The roundhouse, etc., are being erected on the south side of the through tracks, and considerable progress has been made with the work. The yard has been remodelled, on the most modern plans. B. K. Russell, formerly Chief Engineer in charge of construction of the Bruce Mines and Algoma Ry., is engineer in charge of the works at North Bay for the contractor. (Sept., pg. 309.)

North Bay-Sudbury Grade Reduction.—Between North Bay and Sudbury, Ont., the gradients are being reduced from 1% in both directions to 0.4%. Just east of Sudbury a new line is being built south of the present track for about three miles. F. S. Darling, Divisional Engineer of Construction, Montreal, has charge, and E. H. Pierce is assistant engineer on the work. The Canada Construction Co., of Montreal, has the contract. (July, pg. 245.)

Fort William to Winnipeg Grade Reductions.—On this portion of the line the gradient is being reduced from 1% westbound, and from 0.7% eastbound to 0.4% in each direction. In order to secure this reduction several deviations are being made, the most important of which are at Eagle river, near Rat Portage, and at Cross Lake, where new lines are being built. F. S. Darling, Divisional Engineer of Construction, Montreal, is in charge, with J. M. Dixon, assistant engineer, on the work. Foley Bros. and Larsen are the contractors.

Winnipeg Beach Branch.—At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted for a line from Winnipeg Beach to Teulon and to Iceland river by way of Gimli, Man., 35 miles.

Winnipeg to Brandon Grade Reduction.—It is proposed to reduce the gradient on the line between these points from 0.7% to 0.3% in each direction. It is expected that this work will be gone on with next year.

Pipstone Branch.—Grading on the extension of this branch from Arcola to Regina, Assa., 113 miles, has been practically completed. Up to Oct. 15 track had been laid on 15 miles from Regina southeasterly, and it was intended to continue laying track at the rate of about a mile a day as long as the weather permitted. It was not expected, however, to be able to have the track laid on the whole of the extension this year. J. G. Sullivan, Division Engineer of Construction, Winnipeg, is in charge, with A. McCullough as assistant engineer on the work. Foley Bros. and Larsen had the contract for grading. (Oct., pg. 355.)

Manitoba and Northwestern Ry.—Track has been laid from Yorkton, Assa., to Sheho,

42 miles, and it is expected to complete the grading of 30 miles beyond that point this year. This will carry the line to near the boundary between Assiniboia and Saskatchewan. J. G. Sullivan, Divisional Engineer of Construction, Winnipeg, is in charge of construction, with T. S. Armstrong as assistant engineer on the work. J. D. McArthur & Co., of Winnipeg, has the contract for grading. (Sept., pg. 302.)

Brandon to Broadview Grade Reduction.—The gradient is being reduced from 1% each way to 0.4% each way on the main line from Brandon, Man., to Broadview, Assa., 131 miles. It is expected to complete the work this year. J. G. Sullivan, Divisional Engineer of Construction, Winnipeg, has charge, with W. A. James as assistant engineer on the work. P. Lambe is the contractor.

Pheasant Hills Branch. Grading on this branch from Kirkella has been completed to Jumping Deer creek, Assa., 150 miles. No more grading will be done this year. On Oct. 14 track had been laid to Pearl creek, about 100 miles, and it was expected to lay about 30 miles more this year to Balcarres. The work is in charge of J. G. Sullivan, Division Engineer of Construction, Winnipeg, with M. Cotton as assistant engineer in charge. Foley Bros. and Larsen had the contract for grading the first 100 miles, and J. D. McArthur & Co., of Winnipeg, that for grading the other 50 miles. At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted for the construction of 136 miles of line from near Elkhorn to the Pheasant Hills. (Sept., pg. 309.)

Clanwilliam Deviation.—At Clanwilliam, B.C., the line is being changed for a distance of one mile east, to avoid snow slides. The new line is being built north of the present track. J. G. Sullivan, Divisional Engineer of Construction, is in charge, with H. M. Merridon as assistant engineer on the work. J. W. Stewart is the contractor. (Oct., pg. 355.)

Moose Jaw to Swift Current Grade Reduction.—The gradient between these points,

112.3 miles, is being reduced from 1% each way to 0.4%. This means practically reconstructing the line between Caron and Waldeck. It is expected that the greater part of this work will be done this year, and that it

will be completed early next year. J. G. Sullivan, Division Engineer of Construction, Winnipeg, has charge of the work. Foley Bros. and Larsen are the contractors. Oct., pg. 355.)

Canadian Northern Railway

THE NEW CANADIAN HIGHWAY FROM PORT ARTHUR, THE HEAD OF LAKE SUPERIOR, TO—

FORT FRANCES	MORRIS	GLADSTONE
WINNIPEG	EMERSON	NEEPAWA
PORTAGE LA PRAIRIE	CARMAN	DAUPHIN
BRANDON	HARTNEY	SWAN RIVER

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G.T.R. Betterments, Construction, Etc.

Bonaventure Station Improvements.—The proposals for the re-arrangement of the accommodation at this station, and for additional improvements there have not yet received final sanction.

Montreal Terminals.—We are advised that the proposals in reference to increased accommodation at the Montreal terminals have not yet been matured. Engineers are working on the plans, and it is expected that they will be ready for approval at an early date.

Allandale Yards, Etc.—A 25-stall roundhouse is being built at Allandale, Ont., by T. Hall, of London, Ont. It is also intended to erect modern coal chutes, and to increase the capacity of the yard by adding additional tracks, which are much needed to take care of the increased volume of traffic. The plans for the yard have not been finally adopted.

Yonge St. Bridge, Toronto.—The Railway Committee of the Privy Council has directed the construction of a bridge over the tracks at the foot of Yonge st., and that the cost of the same shall be borne by the G.T.R. and C.P.R. companies. (Oct., pg. 348.)

Toronto Yards.—The outward freight shed at the new yards in Toronto is almost completed, and rapid progress is being made with the office building at the corner of Front and Simcoe streets. Track laying in the yard is expected to be commenced early in Nov. (Oct., pg. 348.)

Brantford-Paris Gradient Reduction.

—The improvements in progress between Brantford and Paris, Ont., in connection with the carrying of the main line through Brantford are still under way. The gradient of 1% is being reduced to 0.4%, with the exception of about a mile near Brantford, where the grade will remain at 1%.

Fort Erie Roundhouse.—A 25-stall roundhouse is nearly completed at Fort Erie, Ont., and the yards are in course of re-arrangement. T. Hall, of London, Ont., has the contract for the erection of the roundhouse.

Dunnville Station.—A new station building has been completed at Dunnville, Ont.

Kingscourt-Sarnia Double Tracking.

—The work consists chiefly of the construction of a second track alongside the existing one. Grading is practically finished between Sarnia and Wyoming, Ont., and the greater part of the masonry structures are completed. Between Wyoming and Kingscourt about two miles of grading have been completed.

Grand Trunk Pacific Railway.

The act incorporating the G.T. Pacific Ry. Co. has been passed by the Dominion Parliament, as also has the act confirming the agreement with the company, and providing for the construction of a national transcontinental railway. In the estimates \$500,000 has been provided for the purpose of making surveys, etc., for the Government section of the line between Moncton, N.B., and Winnipeg. The G.T. Pacific Ry. Co. has not been formally organized, but it has employed a large staff of engineers, which has been at work from the Quebec boundary to the Pacific coast at Port Simpson during the summer. The work is being done under the direction of J. R. Stephens, Assistant Chief Engineer of the G.T.R., who was formerly connected with railway work in the Southern States, and the staff under him is almost entirely composed of U.S. engineers. The headquarters of the staff is at Winnipeg, and divisional offices have been established at North Bay, Ont., Winnipeg and

Edmonton, Alta. From North Bay four survey parties are in the field, operating between the Quebec boundary and the north shore of Lake Nepigon; from that point westerly the surveys have been carried on by parties working from Rat Portage and Winnipeg; and parties have also been working east and west from Edmonton.

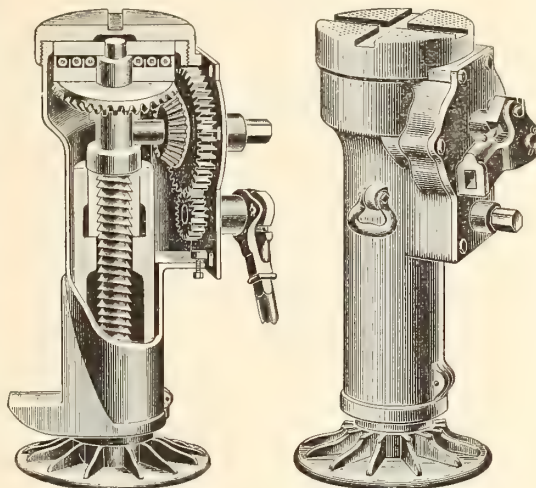
C. M. Hays, 2nd Vice-President and General Manager G.T.R., and who, it is reported, will be President of the G.T. Pacific Ry. Co., made the following statement before the prorogation of Parliament: "The G.T. Pacific incorporation act having been passed by the Senate, and the amendments offered therein concurred in by the Commons, the bill is now only waiting the Royal assent to place the matter in a position where the company can be organized, and take definite form to inaugurate the necessary action preparatory to undertaking the obligations entered into by the company with the Government. The reconnaissance survey is proceeding vigorously, and in fact has been ever since early last spring. We have between 15 and 20 parties in the field, some of whom have about completed the work on their district. Others will keep on all through the winter. Great care is being taken with a view of obtaining a line with a minimum grade not to exceed

pushed as soon as the results of our surveys are known, as also the construction of the branches from a port on Lake Superior (which port is yet to be determined), to a junction with the eastern division, and a line from North Bay north, also intersecting the eastern division. As to the plans and intentions in connection with the work on the eastern division, I will have to refer to the Government, that portion of the undertaking being, as you are aware, in their control. You ask within what time the line would be completed, and, replying thereto, I will state that of course while this is dependent on conditions generally, the results of surveys, the situation as regards labor, movement of supplies, material, etc., it is not likely that the road will be completed short of five years."

It is stated unofficially that the western portion of the road will be built by the G. T. Pacific Ry. Co., and the work will be done by contract, tenders being asked from contractors. It is not yet announced where the Pacific terminus of the line will be. Port Simpson, B.C., has been most frequently spoken of, but Bute Inlet, and at least one other port in B.C. have been considered.

A New Type of Ball-Bearing Jack.

A. O. Norton, of Coaticook, Que., has recently designed and brought out a new ball-bearing ratchet screw jack having a capacity of 60 tons, and which is intended for use under 80,000 lbs., and 100,000 lbs. loaded cars, as well as for wrecking equipment. This jack is similar in construction to the earlier type of Norton ball-bearing jack, in that the gears are cut from solid steel forgings, and it has ball bearings to reduce the friction. Mr. Norton advises us that all the working parts are protected from grit and rust; that, being a screw jack without filling, packing or valves, it is absolutely safe under all conditions; that it cannot slip or drop the load, and that it is always ready for instant use.



NORTON BALL-BEARING JACK, WITH SECTIONAL VIEW.

0.4%, with no greater than 2 or 3 degree curves. On some portions of the road where the country is comparatively unknown, and owing to the lack of transportation facilities supplies are difficult to obtain, progress is not as rapid as would otherwise be the case. As to plans for construction and the points at which a beginning will be made, that is dependent upon the completion of surveys. We now have the territory well covered. The first parties sent out, which were started before the Government policy as to the eastern division was developed, located between Winnipeg and North Bay, the theory being that that was the section of country that was most in need of additional facilities. While it is undoubtedly true that for several years to come a large proportion of the grain crop of the Northwest will move out by water during the season of navigation, there is to-day a very considerable quantity moving during the winter months by rail north of Lake Superior, and this quantity will be increased in a constantly growing volume as rail facilities for the economical and expeditious movement of the traffic are provided. The new line, with its four-tenths per cent. grades, will have great advantage in this respect. Our surveying parties are also well distributed across the territory from Winnipeg west, and construction on that portion of the line will be

Canadian Northern Ry. Construction.

General.—In a recent interview in Nova Scotia D. D. Mann, Vice-President, said there was no truth in the report that his firm had decided to abandon its project of a transcontinental line. It was intended to have a line from the Atlantic to the Pacific, and they hoped to connect the Nova Scotia system now under construction, a charter having been obtained for the connecting line. The C. N. Ry. would also be extended from Winnipeg to Hudson's Bay.

Port Arthur Yards and Docks.—During the past season a good deal of filling has been done at the yards at Port Arthur, to build them up to grade, and this work will be continued as necessity requires. A dock was erected early in the season specially for the unloading of steel rails, and has been of great assistance in the transferring of a large quantity of rails from the steamers to the cars for use in connection with the Company's western extensions.

Port Arthur Elevator.—An additional working house elevator and a series of tile tanks for the storage of grain are under construction. These will have a capacity of 3,500,000 bush., bringing the Company's total storage capacity at Port Arthur to 7,000,000 bush. (July, pg. 243.)

Port Arthur to Winnipeg.—Ballasting gangs were employed all summer on the track between Port Arthur and Winnipeg, and the roadbed is in excellent condition. Twenty miles of steel rails were changed between Port Arthur and Stanley junction, Ont. Section houses and station buildings have

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Burlington Elevator, St. Louis, Mo.	Capacity.....	1,300,000 Bushels
Grand Trunk Elevators, No. 2 and No. 3, Portland, Me.	"	2,500,000 "
Export Elevator, Buffalo, N.Y.	"	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario	"	1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Eric R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
Union Elevator, East St. Louis, Ill.	"	1,100,000 "
Montreal Warehousing Co.'s Belt Conveyor System	"	

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TERMS OF PAYMENT.

An actual settler may purchase 640 acres, or less, on the 10 payment plan, by which the aggregate amount of principal and interest is divided into a cash instalment to be paid at the time of purchase and nine equal deferred instalments annually thereafter, as follows:

160 acres at \$4.00 per acre, 1st instalment \$95.85, and 9 equal instalments of \$80.
160 acres at \$4.50 per acre, 1st instalment \$107.85, and 9 equal instalments of \$90.
160 acres at \$5.00 per acre, 1st instalment \$119.85, and 9 equal instalments of \$100.
160 acres at \$5.50 per acre, 1st instalment \$131.80, and 9 equal instalments of \$110.
160 acres at \$6.00 per acre, 1st instalment \$143.80, and 9 equal instalments of \$120.00.

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

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Land Commissioner C.P.R. Co.,
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TEMPLE BUILDING—TORONTO

TORONTO ENGRAVING CO.
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ELECTROTYPERS.
92 BAY ST.

been erected at a number of points, and freight sheds have been built at Mine Center, Fort Frances, and Rainy River, Ont., and at Beaudette, Minn. New track scales have been built at West Fort William and Rainy River. (Oct., pg. 347.)

Winnipeg Roundhouse.—The erection of a new 15-stall engine house at Winnipeg is being gone on with. This is in addition to the existing 14-stall roundhouse hitherto in the yard.

Winnipeg Ticket Offices.—The Company's city ticket office, together with the city offices of the Canadian Northern Express Co., and the Canadian Northern Telegraph Co., will be moved Nov. 1 from 431 Main st. to the corner of Portage avenue and Main st., into the store hitherto occupied by A. Wright.

General Improvements on Manitoba Lines.—Section houses and station buildings have been erected at a number of points over the entire system, and new freight sheds have been built at Hartney, Gladstone and Neepawa, Man. New water stations have been built at White Plains, Roland, Belmont and Hartney, and at a number of other points gasoline plants have been substituted for windmill towers for pumping purposes. New sidings are being built at many points on the system, and others are being lengthened to meet the increasing traffic.

The Western Extension Ry. Co., which was incorporated at the last session of the Manitoba Legislature for the purpose of constructing a number of branch lines in Manitoba, and for entering into a contract with the Manitoba Government for the construction of the same, has been formally amalgamated with the C.N. Ry. Co. The C.N. Ry. Co. was authorized by an act passed at the recent session of the Dominion Parliament to absorb the W.E. Ry. Co., the incorporators of which were C.N. Ry. officials. The agreement of amalgamation was filed with the Secretary of State at Ottawa Oct. 23. (May, pg. 152.)

Manitoba Branches.—Press reports recently stated that the Company had a survey party in the field, running a line from Armstrong to Rosebank, Man., and that it was intended to continue the survey to Thornhill. We are officially advised that the Company is not making any surveys in that section of the country. The Company is under contract with the Manitoba Government to construct a line from Roland or Myrtle to Morden, but such a line would not touch either of the points mentioned in the report.

Edmonton.—At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted to the Edmonton, Yukon and Pacific Ry. towards the construction of 50 miles of railway from South Edmonton to North Edmonton, Alta., and thence northerly towards the Yellow Head pass. The E.Y. and P. Ry. charter is owned by Mackenzie, Mann & Co., but has not been formally amalgamated with the Canadian Northern Ry. It has constructed about four miles of line from Strathcona into Edmonton, and is now extending that line to the Hudson's Bay reserve, where it has acquired land for a station yard and buildings. (Oct., pg. 347.)

Recent Dominion Legislation.

The following acts relating to transportation interests were passed at the recent session of the Dominion Parliament, in addition to those mentioned in our issues of July (pg. 231), and Aug. (pg. 318):

Incorporating the Canadian Telephone and Telegraph Co.

Incorporating the Southern Central Pacific Ry. Co.

Incorporating the St. Chrysostome Ry. Co.
Incorporating the Quebec, New Brunswick and Nova Scotia Ry.

Amending the act respecting certificates to masters and mates of ships.

Incorporating the Grand Trunk Pacific Ry. Co.

Incorporating the Toronto and Hamilton Ry. Co.

Incorporating the Canadian Transportation and Storage Co.

Respecting the Nicola, Kamloops and Similkameen Coal and Ry. Co.

Incorporating the Brockville, Westport and Northwestern Ry. Co.

Further amending the Steamboat Inspection Act, 1888.

Amending the act relating to Ocean steamboat subsidies.

Amending the act relating to the Department of Railways and Canals.

Incorporating the Ottawa River Ry. Co.

Amending the act respecting the harbor of North Sydney, N.S.

Respecting the construction of a National Transcontinental Ry.

Amending the Manitoba Grain Act, 1900.

Amending the Shipping Casualties Act, 1901.

Respecting the pilotage district of Montreal, and the port and pilotage district of Quebec.

Authorizing the granting of subsidies in aid of the construction of certain lines of railway.

Authorizing aid to the Quebec Bridge and Railway Co. towards the completion of its undertaking, and to confirm an agreement between the Government and the Company.

Amending and consolidating the law relating to railways.

Respecting the jurisdiction of the Exchequer Court as to railway debts.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Algoma Central and Hudson Bay Ry.—Track has been laid for 64 miles of this line about 1½ miles beyond Mekatina, and grading has been completed to Park Lake, where a junction will be effected with the Michipicoten branch line. Some of the bridge work has been done on the six bridges from Park Lake southerly, but nothing has been done at the Montreal river bridge, which will be 1,100 ft. long and 130 ft. high. This bridge crosses the river at the Montreal falls, which are 175 ft. high. A location survey has been completed from Park Lake Junction to White River, on the C.P.R. transcontinental line. The line is being operated from Sault Ste. Marie, Ont., to Ogidaki, by the receiver, B. F. Fackenthal, Jr., three trains a week being run. The Michipicoten branch will probably be closed for the winter. (Oct., pg. 339.)

The Cape Breton Electric Co. has now in operation about eight miles of electric street railway in Sydney, N.S., and five miles from North Sydney to Sydney Mines. Its power houses are at Sydney and North Sydney, and it has a sub-station in Glace Bay, which supplies power for the Sydney and Glace Bay Ry. In Sydney the equipment consists of nine motor cars equipped with two no. 67 motors, and in North Sydney there are three similar cars. The company also operates three ferry steamers between the various piers in Sydney and North Sydney. (Aug., pg. 267.)

Cape Breton Ry.—This railway is now in operation between Point Tupper and St. Peter, N.S., about 32 miles. At the recent session of the Dominion Parliament a subsidy at the rate of \$3,200 a mile was voted towards the extension of the line from St. Peter to Louisburg, 50 miles. The surveys for this extension have been completed. (Oct., pg. 340.)

Halifax and Southwestern Ry.—The line constructed under the charter of the old Nova Scotia Southern Ry. from New Germany on

the line of the Central Ry. of Nova Scotia to Caledonia has been completed. It is being operated as a branch line of the Central Ry., which has been absorbed by the H. and S. Ry.

The Dominion Parliament at its recent session voted the following subsidies in aid of the construction of this line, which also comprises the Central Ry. from Bridgewater to Middleton, N.S., and the lines being constructed under the charter of the old Nova Scotia Southern Ry.: from Halifax to Mahone Bay, 62 miles; from Bridgewater toward Barrington Passage, 83 miles, and an additional 39 miles to Barrington Passage; from New Germany to Caledonia, 22 miles, and from Caledonia to Liverpool, 29 miles. These subsidies are at the rate of \$3,200 a mile, with the usual provision for an increase to \$6,400 a mile in the event of the cost of construction exceeding \$13,000 a mile. (Oct., pg. 341.)

James Bay Ry.—At the recent session of the Dominion Parliament a subsidy at the rate of \$3,200 a mile, with the usual provisions for an increase to \$6,400 a mile, was voted for the construction of a railway from Toronto, through Parry Sound to Sudbury, 265 miles. Replying to a question asked in the course of the discussion, the acting Minister of Railways stated that the line would cross the C.P.R. at Sudbury, and would ultimately form part of the Canadian Northern transcontinental line. It was also stated that the line would follow a route on the east side of Lake Simcoe in order to secure better gradients. (Oct., pg. 342.)

Klondike Mines Ry.—At the recent session of the Dominion Parliament a subsidy at the rate of \$3,200 a mile was voted towards the construction of a railway from Dawson to the Stewart river, Yukon territory. In the discussion the acting Minister of Railways stated that this would be the most northerly railway on the continent. Replying to Col. S. Hughes, the Premier stated that the Government would have to build an all-Canadian railway to the Yukon, now that the award on the Alaska boundary question had been decided in favor of the U.S. (July, pg. 237.)

Lindsay, Bobcaygeon and Pontypool Ry.—We were advised, Oct. 24, that grading was almost completed from Burketon, on the C.P.R. Toronto-Montreal line, to the southern boundary of Lindsay, and from the eastern boundary of Lindsay to Bobcaygeon. The grading in the town of Lindsay is expected to be completed this year, the delay having been occasioned owing to difficulties in fixing the location, caused by the G.T.R. putting in a number of new sidings and rendering a deviation necessary. All the culverts and other structures are built. The building of the stations and water tanks will be proceeded with during the winter. The station buildings will be Blackstock, six miles north of Burketon; Lindsay, Dunsford, about halfway between Lindsay and Bobcaygeon, and Bobcaygeon. There will also be two flag stations, the location of which is not fixed. About 4,000 tons of 60-lb. rails of Belgian and German make have been ordered, with 24-inch angle bars. The contractors are: general, E. F. Fauquier; sub-contractors, J. McMartin, Burketon, eight miles of grading and fencing from Burketon northerly; and Guy Campbell, who has eight miles of grading and fencing from the end of McMartin's contract to East river or across creek; I. T. Richards has the contract for fencing the balance of the line. At the last session of the Dominion Parliament the subsidy of \$3,200 a mile for a line not exceeding 40 miles between Burketon and Pontypool was revoked. (Oct., pg. 343.)

Manitoulin and North Shore Ry.—The completed section of this line are being operated under Superintendent Montgomery. It is reported that this line, while allied with the Consolidated Lake Superior Co., is independent of it and is not affected by the Receiver-ship.

At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted for the construction of 30 miles of railway from Little Current, on Manitoulin island, to Sudbury and the C.P.R. line. (Oct., pg. 343.)

Middleton and Victoria Beach Ry.—The charter for this line, which is to run from Middleton to Victoria Beach, N.S., has been acquired by Mackenzie, Mann & Co. Some grading between Middleton and Bridgetown was completed in 1902. A contract for the construction of the line has been let to Angus Sinclair. T. H. White, Chief Engineer of the Halifax and Southwestern Ry., is also Chief Engineer for this line. Office at Bridgewater, N.S. At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted for 16 miles of the line between Middleton and Victoria Beach. (Sept., pg. 307.)

Montreal Terminal Ry. (Electric).—Between 9 and 10 miles of track, of which about 4 miles are double track, are in operation in Montreal, having been laid in 1902. The line runs from Moreau st., at the east end of the city, through the town of Delorimier, to a central station at the back of the city hall. This line is being operated by the Company, and connection is made at Moreau st. with the old line to Bout de L'Isle. (Oct., pg. 343.)

Preston and Berlin Ry. (Electric).—This line, which was completed between Preston and Berlin, Ont., and operated by steam in

1902, has been electrified, and was placed in operation as an electric road in Sept. It is being operated by the Galt, Preston and Hespeler Electric Ry. for passenger traffic. It is expected that a freight service will be operated about the middle of Dec. (May, pg. 151.)

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A circular has been issued announcing the programme of the electrical section for the season of 1903-1904. At the first meeting on Oct. 15 the subject was "The electrical equipment of some Canadian hydro-electric power plants," introduced in a paper by R.S. Kelsch, M. Can. Soc. C.E., on "The re-organization of the Lachine Rapids Hydraulic and Land Co.'s power station," illustrated by lantern projections.

Other meetings will be held as follows:

Nov. 19—Alternating current motors for traction purposes.

Jan. 7—The relative cost of producing power by steam and by water under different conditions.

Feb. 11—Recent developments in electric illumination.

Mar. 18—The use of electricity on canals.

April 17—Power station design and operation as affected by recent advances in the design of turbo-electric machinery.

RAILWAY FINANCE, MEETINGS, ETC.

Algoma Central and Hudson Bay Ry.—An action was entered in the Ontario courts by Conmee and Bowman, who hold the general contract for the construction of the A.C. and H.B.Ry., to enforce a lien for construction work amounting to \$400,000 and interest. On the case coming before the court the contractors were asked to pay into court funds to pay off the first mortgage. No decision was given.

Brockville, Westport and Sault Ste. Marie Ry.—The action of a number of judgment creditors to have the sale of the line to a New York syndicate by the bondholders set aside, has been dismissed. The New York syndicate agreed to pay to the judgment creditors of the old company 25% on their claims, which amounted to about \$200,000. Upon this agreement the opposition to the application of the Reorganization Syndicate for an act confirming the sale to it, giving power to extend the line and changing the name of the company to the Brockville, Westport and Northwestern Ry. Co. was withdrawn, and the act was passed. (Aug., pg. 261.)

British Columbia Electric Ry. Co.—Statement of earnings and expenses for Aug.:

GROSS EARNINGS.	1902.	1903.	Increase or Decrease.
Railway—Vancouver division	\$15,796	\$18,591	\$2,795+
Victoria	10,534	11,166	632+
Westminster "	10,760	11,314	554+
Lighting—Vancouver division	10,634	14,216	3,582+
Victoria	5,572	6,666	1,094+
	53,296	61,893	8,597+
Less working expenses.....	31,733	35,163	3,430+
	21,563	26,730	5,167+
Renewal funds.....	4,222	4,988	766+
Net income.....	17,341	21,742	4,401+
Aggregate gross earnings, July 1, to August 31.....	102,514	123,738	21,224+
Aggregate net earnings, July 1, to August 31.....	\$32,899	\$45,695	\$12,796+

Canadian Northern Ry.—Earnings:

	1903.	1902.	Increase or Decrease.
July.....	\$254,800	\$132,000	\$122,800+
Aug.....	250,800	131,200	119,600+
Sept.....	270,800	182,300	88,500+
	\$776,400	\$445,500	\$330,900+

Mileage in operation from Sept. 1, 1,350 miles, against 1,244 at same date, 1902.

Working expenses for Aug., \$169,100, net earnings, \$81,700, against \$81,000 and \$50,200 respectively for Aug., 1902. Net earnings for two months to Aug. 31, \$170,900 against \$101,600 for same period, 1902.

The town of Edmonton, Alta., recently offered for sale \$225,000 of 4% debentures in London, Eng., of which \$30,000 was to be utilized for bonusing the C.N.Ry., to establish terminals, shops, yards, etc., in the town.

Dominion Atlantic Ry.—Gross earnings for Aug. \$132,600 against \$131,678 for Aug., 1902, making for eight months to Aug. 31, \$624,190, against \$633,922 for same period, 1902.

Guelph Radial Ry.—The taxpayers of Guelph, Ont., have decided by a majority of 279 to take over the street railway and its franchise for the construction of a line outside the city. The cost of the line will be \$78,000.

Grand Trunk Ry.—The subscription list for £750,000 of 4% guaranteed stock, issued under the powers of the G.T.Ry. act, 1903, and sanctioned by the shareholders at a special meeting held in London, Eng., Aug. 24, was closed Oct. 1. The stock was offered at £97.10, and is reported to have been well taken up. Forty per cent. of the stock was said to have been subscribed on Sept. 30.

Great Northern Ry. of Canada.—The annual meeting was called to be held in Quebec, Oct. 13, but was not held. Notices have since been issued calling a special meeting of shareholders for Nov. 18 for the election of a board of directors, transacting such business as may be brought up at an annual meeting, and for considering the terms of the lease of the Chateaugay and Northern Ry.

Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$102.75+
Feb.....	9,321.75	8,498.39	823.36
Mar.....	10,195.12	9,761.57	433.55+
April.....	10,532.55	10,025.66	506.89+
May.....	10,768.11	11,126.66	358.55-
June.....	11,843.82	11,528.19	315.63+
July.....	15,942.37	14,834.69	1,107.68+
Aug.....	16,786.03	17,177.12	391.09-
Sept.....	18,494.60	17,494.21	1,000.39+
	\$114,751.68	\$111,211.07	\$3,540.61+

Intercolonial Ry.—In referring to the repayment of the Dominion of Canada 5% Intercolonial Ry., and 4% guaranteed Intercolonial Ry. bonds on Oct. 1, the Stock Exchange Gazette, of London, Eng., said it "affords a fitting occasion to make a brief retrospect of the great financial and economic changes which have taken place in that country in the course of the 30 years which have elapsed since confederation was completed by the incorporation on July 1, 1873, of Prince Edward Island into the Dominion." It may at the outset be recalled that when confederation was originally established in 1867 it was made a condition that the Government should construct the so-called Intercolonial railway, to connect Quebec and Halifax, in order to give access on the Atlantic coast independent of the United States; while the British Government on its side guaranteed the interest on £3,000,000 of the 4% bonds, being part of a total issue of £6,500,000, of which guaranteed portion £1,500,000 is now to be paid off, together with the £500,000 of 5% bonds that were issued in 1868. When confederation was completed the population was about 3,500,000, and in 1902 it had increased to about 5,500,000. In the same interval the revenue rose from, in round figures, \$21,000,000 to \$58,000,000; the imports from \$128,000,000 to \$212,300,000, and the exports from \$89,800,000 to \$211,600,000. This progress was largely contributed to by the growth in the railway system, the mileage in operation at the two periods being, respectively, 2,638 and 18,500 miles, and the earnings \$17,140,000, and \$83,500,000. The paid-up capitals of the chartered banks rose from \$55,100,000 to \$69,000,000, and the deposits in the Post Office Savings Bank from \$3,207,000 to \$42,320,000; while the number of foreign settlers from abroad was in 1873 36,900, and in 1902 84,000. Accompanying the steady and

remarkable progress thus indicated there has naturally been a great development of the many natural resources—agricultural, mineral and other—of the country, and a corresponding rise in its financial credit; for, whereas 30 years ago the Dominion borrowed on a 4% basis with the British Government guarantee for the interest at its back, its 3% bonds now command over par in the market.

Interprovincial and James Bay Ry.—The directors at a recent meeting made a call on the shareholders of 10% on their shares, payable in two instalments of 5% each, on Nov. 3 and Dec. 3, respectively.

	1902-3.	1901-2.	Increase or Decrease.
Dec.....	\$15,041.80	\$12,947.48	\$2,094.32+
Jan.....	12,132.54	10,117.60	2,014.94+
Feb.....	10,716.42	8,894.78	1,821.64+
Mar.....	11,533.68	10,233.21	1,300.47+
Apr.....	11,818.06	9,941.94	1,876.12+
May.....	13,144.76	12,233.68	911.08+
June.....	16,223.80	13,642.77	2,581.03+
July.....	18,317.23	16,337.43	1,979.80+
Aug.....	19,094.16	16,102.08	2,992.08+
Sept.....	19,528.11	18,157.57	1,370.54
	\$147,550.56	\$128,608.54	\$18,942.02+

Middleton and Victoria Beach Ry.—This railway, under construction from Middleton to Victoria Beach, N.S., has been acquired by Mackenzie, Mann & Co. When completed it will be operated as an extension of the Central Ry. of Nova Scotia, now being operated from Bridgewater to Middleton Jct., N.S., and which has recently been incorporated with the Halifax and Southwestern Ry.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—The following officers and directors were elected at the annual meeting recently held. President, T. Lowry; Vice-President, J. Martin; General Manager, E. Pennington; Other directors: Sir W. C. Van Horne, Sir T. G. Shaughnessy, W. D. Washburn, C. H. Pettit, A. H. Bright, G. R. Newell, R. B. Angus, E. A. Young; Secretary and Treasurer, C. F. Clement; Auditor, C. W. Gardiner.

The committee of the Toronto Stock Exchange has listed \$7,000,000 of preferred and \$14,000,000 of the common stock of the company. (Oct., pg. 335.)

Montreal Street Ry.—The annual statement submitted to the city council shows that the receipts within the city limits for the year ended Aug. 31, amounted to \$1,941,190.80, and that the total income on which the percentage to be paid the city is calculated, amounted to \$1,954,251.33. The total amount to be paid the city is \$106,340.11, being calculated on a basis of 4% up to \$1,000,000; 6% on the next \$500,000, and 8% on the balance. This is the largest amount paid by the company to the city.

Nelson and Fort Sheppard Ry.—The following officers and directors were elected at the annual meeting recently held: President, J. D. Farrell, Seattle, Wash.; Vice-President, H. A. Kennedy, Spokane, Wash.; Secretary, A. M. Thomas, Spokane, Wash.; Superintendent, R. C. Morgan, Seattle, Wash.; Attorney, A. H. MacNeill, Rossland, B.C. See also Red Mountain Ry.

New York and Ottawa Ry.—This railway which is the extension of the Ottawa and New York Ry., from the International boundary line, from North Creek to Tupper Lake, N.Y., will be sold at public auction at St. Regis Falls, N.Y., Nov. 20. The N.Y. and O. Ry. owns the stock and bonds of the O. and N.Y. Ry., which extends from the International boundary to Ottawa, 56.79 miles. The Delaware and Hudson Rd. is reported to be a likely purchaser. Representatives of that company have been over the line, making an examination into its condition, etc.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net loss for Aug. \$4,321.19, against net earnings \$8,581.22 for Aug., 1902; making for nine months ended Aug. 31 net earn-

ings \$10,819.28, against \$64,802.92 for same period 1901-02.

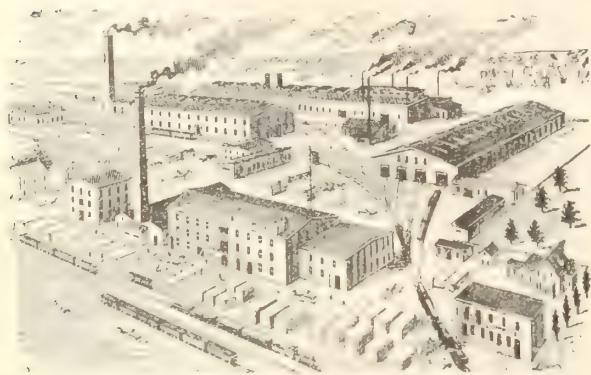
Quebec Central Ry. Gross earnings for Aug. \$72,404.20; working expenses, \$47,116.78; net earnings, \$25,287.42, against \$73,784.05 gross and \$30,245.82 net for Aug.,

1902. Gross earnings for eight months ended Aug. 31, \$461,671.71; net earnings, \$134,082.09, against \$439,397.19 gross and \$137,891.73 net for same period 1902.

Red Mountain Ry.—The officers and directors elected at the recent annual meeting of

the shareholders of the Nelson and Fort Sheppard Ry., were also elected for the R. M. Ry.

Reid Newfoundland Co.—On a recent visit to Moncton, N.B., H. A. Morine, General Passenger Agent of the R.N. Co., is reported to have stated that business on the Co.'s rail-



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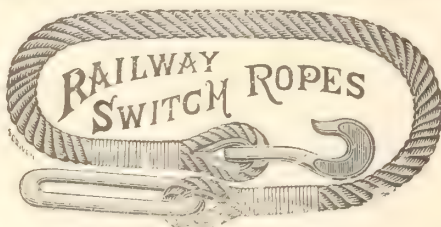
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way had increased 30% this year over the previous year.

St. Mary's River Ry.—Notice has been officially given that there has been deposited with the Secretary of State a mortgage deed dated July 2, 1903, given by the company to the Toronto General Trusts Corporation, securing an issue of bonds.

Shuswap and Okanagan Ry.—Net earnings for three months ended June 30, \$5,070, against \$3,262 for same period 1902. Net earnings for six months to June 30, \$8,377, against \$6,017 for same period 1902.

Temiscouata Ry.—Net earnings for Aug. \$65, making for eight months ended Aug. 31 net earnings of \$8,645.

Toronto, Hamilton and Buffalo Ry.—Gross earnings for Sept., \$54,579.08, against \$37,478.13 for Sept., 1902. Gross earnings for four months ended Sept. 30, \$186,698.32, against \$139,779.83 for same period 1902. *

Toronto Railway Co.—Car earnings:

	1903.	1902.	Increase or Decrease
Jan.....	\$161,938.22	\$137,135.21	\$24,803.01+
Feb.....	146,539.17	127,981.01	18,558.16+
Mar.....	159,913.85	141,681.22	18,232.63+
April.....	162,276.36	132,546.56	29,729.80+
May.....	174,519.58	145,195.54	29,324.04+
June.....	177,593.21	131,865.85	45,727.36+
July.....	192,629.06	162,072.02	30,556.94+
Aug.....	185,822.45	164,764.37	21,057.88+
Sept.....	237,009.91	195,610.37	41,399.54+
	\$1,598,241.81	\$1,338,852.45	\$259,389.36+

White Pass and Yukon Ry.—Earnings for Aug. \$268,739; from Sept. 1 to 21, \$337,154. Gross earnings from July 1 to Sept. 21, \$821,893.

Payment of Customs Officers.

As a result of the representations made to the Dominion Government by the Dominion Marine Association an order-in-council has been passed rescinding the order-in-council of Dec. 2, 1895, and the temporary regulations of July 20, 1903, respecting extra service charges, and providing as follows:

Customs offices are to be kept open during days of business on Saturday from 9 a.m. to 1 p.m., and on other days of business from 9 a.m. to 4 p.m., except as otherwise ordered by the Minister of Customs. These hours are to be prolonged so far as relates to the attendance and service of any particular officers or class of officers, without extra compensation to officers, whenever deemed by the Minister to be required by the necessities or interests of the public service. The usual and ordinary hours of service for outdoor officers of customs shall be from 8 a.m. to 6 p.m. on all days of business—subject to change by order of the Minister.

The Minister of Customs may pay out of moneys available for the purpose, an overtime allowance to customs officers for services performed on holidays, or in excess of 10 hours per day on other days, when the salaries of the officers do not cover such services. The overtime allowance shall not exceed the rate or amount authorized in the regulations hereby repealed, except in special cases approved by the Minister.

The following services shall be deemed to be special customs services for which a reasonable compensation, as fixed from time to time by the Minister, shall be paid by the persons accommodated, to His Majesty, viz.: Services performed by a customs officer for which an overtime allowance is authorized to be paid, except as otherwise from time to time determined by the Minister. Services of a customs officer performed outside of Canada at the request of the railway companies or others accommodated. Services of a customs officer on board moving trains and vessels performed at the request of the railway companies or others accommodated. Such other customs service of a special character or class

as may be granted with the approval of the Minister on application of the persons or others accommodated.

Requests for customs special service and for service outside the usual business days and hours shall be presented to the proper officer in sufficient time to enable him to make arrangements for the attendance of the necessary officers to perform the service if approved and acceded to. The charge for customs special services shall be paid to the collector of the port having supervision of the service, who shall deposit all collections of charges for customs special services to the credit of the Receiver-General. All moneys arising from charges and fees for customs special services shall be available for the salaries and pay of customs officers for the year in which the special service has been performed.

Under the above order-in-council, railways, steamship companies and other vessel owners, until otherwise ordered, are exempt from payment of charges for the authorized attendance of customs officers at offices, stations and wharves in Canada on holidays and outside of regular hours, except on Sundays and attendance for local delivery of goods. Provided, however, that charges for special customs services shall be collected for services of customs officers in attendance on frontier highway bridges and ferries (not railway) during certain hours of the night, to be regulated by the collector subject to the approval of the Department, and on Sundays; provided, further, that the scale of charges for attendance of customs officers on sufferance warehouses shall be considered as held in abeyance for decision hereafter.

The expression "Customs holidays" is held to include: Sundays, New Year's Day, Good Friday, Christmas Day, Labor Day, Victoria Day, the birthday or the day fixed by proclamation for the celebration of the birthday of the reigning Sovereign, and any day appointed by proclamation of the Governor-General-in-Council for a general fast or thanksgiving.

The customs services heretofore authorized and classed as extra are to be continued until otherwise ordered.

The overtime of officers, in all cases, where authorized, will be paid by the Department from July 1, 1903. An account of the charges for special customs services is to be rendered by the collector to the company or person for whom the service has been granted. The collector shall deposit all collections of charges for special customs services to the credit of the Receiver-General.

The following rates are prescribed for officers' overtime and to be also observed in computing charges for special customs services, pending further instructions, viz.: East of British Columbia, for services on Sundays, not exceeding 3 hours, \$1.25; over 3 and up to 10 hours, \$2.50; per hour in excess of 10 hours, 25c.; for services on other days, 25 cents an hour. In British Columbia, for services on Sundays, not exceeding 3 hours, \$1.50; over 3 and up to 10 hours, \$3.00; per hour in excess of 10 hours, 30c.; for services on other days, 30 cents an hour. In Yukon Territory, for services on Sundays, not exceeding 3 hours, \$2.50; over 3 and up to 10 hours, \$5; per hour in excess of 10 hours, 50c.; for services on other days, 50 cents an hour. Provided that surveyors and acting surveyors may be allowed rates not exceeding double the rates above prescribed for services east of British Columbia. Provided also, as a general rule, that authorized overtime not exceeding two hours, rendered at one time, may be computed as two hours when the service is not performed immediately before or after the officers' regular hours; provided further, in respect of services for which a stated sum per month has been heretofore received, that the officers' overtime allowance for such service from July 1, 1903, shall not exceed such stated sum per month until otherwise ordered.

Grain Elevator Notes.

The new elevator at Point Edward, Ont., commenced receiving grain Sept. 22.

A dust collecting plant has been installed at the C.P.R. elevators at Fort William, Ont.

The machinery is being installed in the elevator under construction at Montreal for the Harbor Commission.

The Canadian Northern Ry. has announced that it is carrying the fire risk on grain stored in its elevator at Port Arthur, Ont.

The Montreal Harbor Commission has decided to construct grain conveyors from its new elevator to the King Edward and Alexandra piers, and to the shore wharf.

The Dominion Government proposes to erect grain elevators at Port Colborne, Ont., in connection with the extensive improvements now being carried out at the Lake Erie end of the Welland Canal.

F. Love, Superintendent of the elevator of the Goderich Elevator and Transit Co., at Goderich, Ont., was accidentally killed Oct. 19. He stepped on a slack rope, which suddenly tightened, jerking him between two revolving drums, and crushing him to death.

The Winnipeg Grain Exchange announces that the C.P.R. elevators A, B, C, D and E at Fort William, Ont., the Canadian Northern Ry. elevator and annex at Port Arthur, Ont., and the King elevator and annex have been declared "regular" by the council.

The Prescott Terminal Co. (Ltd.) has been incorporated under the Dominion Companies' Act to carry on a general elevator business, and to acquire the property of any elevator company. The capital is fixed at \$100,000, and the chief place of business is at Prescott, Ont. The provisional directors are: B. McLennan, G. M. Kinghorn, J. A. Cuttle, A. E. Ogilvie, F. Robertson, T. A. Crane, of Montreal. The property of the old Prescott Elevator Co. was handed over to the new company Oct. 1 on payment of \$28,000, the price at which the elevator building was sold at auction, and the other property, which was then unsold, was taken over by the new company at \$400. The original investment of the elevator was \$370,000, and the total amount realized by the sale of the effects in the liquidation proceedings was \$120,900.

SHIPPING MATTERS.

Canadian Pacific Ry. Co.'s Fleets.

The ocean, lake and river fleets owned by the C.P.R. comprise 54 vessels of various sizes. Of these the names of 27 are registered on the books of the Dominion Department of Marine; one steamer building will be registered in Canada, and four others do not appear on the Canadian registry, while the remaining 22 are on the British registry in London, Eng. The list of vessels with their gross tonnage is appended:

	Gross Tonnage.
ATLANTIC SERVICE.	
Lake Manitoba.....	8,852
Lake Champlain.....	7,550
Lake Michigan.....	7,000
Lake Erie.....	7,550
Mount Temple.....	7,656
Montcalm.....	5,595
Montfort.....	5,481
Monteagle.....	5,498
Montrose.....	5,431
Montreal.....	7,000
Milwaukee.....	7,323
Mount Royal.....	8,747
Montezuma.....	7,343
Monmouth.....	4,078
	95,014
PACIFIC SERVICE.	
Empress of India.....	5,995
Empress of Japan.....	5,995
Empress of China.....	5,995
Tartar.....	4,425
Athenian.....	3,882
	26,022

PACIFIC COAST SERVICE.

Amur	697
Beaver	545
Chamher	1,044
Danube	827
Otter	366
Princess Beatrice (1)	...
Princess Louise	932
Princess May (2)	1,394
Princess Victoria (2)	2,000
Queen City	391
K. P. Rithet	817
Tees (2)	569
Yosemite	1,525

11,137

(1) Building. (2) Registered in Great Britain, and the figures given are approximate.

UPPER LAKE SERVICE.

Manitoba	2,616
Athabasca	2,269
Alberta	2,282

7,167

B.C. LAKE AND RIVER SERVICE.

Aberdeen	554
Kokanee	348
Kootenay	1,117
Minto	829
Moyie	835
Nelson	160
Rossland	884
Schwatka (1)	484
Slocan	578
Victoria (1)	...

6,125

(1) Are not mentioned in the Canadian register.

TUGS ON COLUMBIA RIVER.

New Denver (1)	9
Proctor	13
Sandon	97
Valhalla	153
Wm. Hunter	51
Ymir	70

423

(1) Not included in Canadian register.

FERRY SERVICE.

Michigan (1)	...
Ontario	1,615

(1) Not included in Canadian register.

SUMMARY.

	No.	Gross Tonnage.
Atlantic service	14	95,014
Pacific service	5	26,022
Pacific Coast service	13	11,317
Upper Lake service	3	7,167
B.C. Lake and River service	11	6,125
Tugs, Columbia river	6	423
Ferry service	2	1,615
	54	147,684

Notices to Mariners.

The following notices to mariners have been issued by the Department of Marine:

No. 82. Sept. 9.—Quebec.—212. Saguenay river, below Point Roches, buoys established.

No. 83. Sept. 11.—Ontario.—213. Lake Superior, north side, Peninsular harbor light station, hand fog horn established. 214. Lake Superior, Victoria island channel, buoys established.

No. 84. Sept. 22.—New Brunswick.—218. South coast, Bay of Fundy, Bliss island, increase in height of lighthouse, change in character of light. 219. South coast, Bay of Fundy, St. John harbor, corrected position of Round reef buoy.

No. 85. Sept. 24.—Quebec.—221. River St. Lawrence, ship channel between Montreal and Quebec, Lake St. Peter, position of hydraulic dredge.

No. 86. Sept. 24.—Ontario.—222. Lake Ontario, west end, Bronte, hydrographic notes. 223. Lake Superior, Thunder bay, Hare island shoal, buoy established.

No. 87. Sept. 26.—Ontario.—224. River St. Mary, Pointe aux Pins, range light buildings.

No. 88. Sept. 30.—British Columbia.—225. Queen Charlotte sound, Smith inlet, hydrographic notes.

No. 89. Sept. 30.—Ontario lighthouse division.—228. Ottawa river, Oka wharf, pole light established.

No. 90. Oct. 5.—Ontario.—229. River St. Lawrence, McNair shoal, buoy. 230. River St. Lawrence, Hillcrest shoal, gas buoy.

No. 91. Oct. 6.—Nova Scotia.—231. West coast, Yarmouth sound, change in posi-

DOMINION LINE STEAMSHIPS

FAST TWIN-SCREW SERVICE. WEEKLY SAILINGS.

MONTREAL TO LIVERPOOL

HALIFAX TO LIVERPOOL

PORTLAND TO LIVERPOOL

BOSTON TO LIVERPOOL Via Queenstown

BOSTON TO MEDITERRANEAN PORTS

MONTREAL TO LIVERPOOL

Southwark - Saturday, Nov. 7th, daylight

HALIFAX TO LIVERPOOL

Dominion - Wednesday, Dec. 3th, noon

PORTLAND TO LIVERPOOL

Canada - Saturday, Nov. 28th, 2 p.m.

Cambrian - Dec. 5th, "

Canada - Jan. 2nd, "

Dominion - Jan. 23rd, "

BOSTON TO LIVERPOOL

Mayflower - Thursday, Nov. 5th, 10.00 a.m.

Columbus - Nov. 12th, 3.00 p.m.

Cumberland - Nov. 19th, 10.00 a.m.

BOSTON TO MEDITERRANEAN

Vancouver - Nov. 21st, 11.00 a.m.

Spacious Promenade Decks, Electric Light, Passenger Accommodation all amidships.
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Cor. King and Yonge Street, Toronto.

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Americanite, Magnet, Office and Annunciator Wires,
Cables for Aerial and Underground Use.

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SCREW CO., Limited,

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D. L. WHITE, Vice-President.

J. W. BENSON, Sec'y-Treas.

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First-Class Tugs for Wrecking, Raft Towing, Etc. Steam Pumps, Divers, Jacks, Hawsers and Lighters.



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TANKS

TANK
FIXTURESRAILROAD WORK
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TORONTO, - ONT.

The Accident and Guarantee Co. of Canada, MONTREAL.

Capital, authorized, \$1,000,000.00

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Personal Accident, Sickness, Fraternal
and Working Men's Benefit Insurance.

T. A. MORRISON & CO.,

206 St. James St., Montreal.

New and Secondhand Contractors'
Plant, etc.

tion of Cat rock bell buoy. New Brunswick.—232. East coast, Shippigan gully, Indian point, change in color of front light, elevation of back light increased. 233. East coast, Shippigan gully and sound; buoyage. 234. Shippigan sound, off Pokesudie point, buoy changed.

No. 92. Oct. 7.—New Brunswick—235. North coast, Chaleur bay, Caraquet harbor, range lights established at Lower Caraquet. Newfoundland—236. Southeast coast, Cape Spear, fog signal, note on fog.

No. 93. Oct. 8.—Nova Scotia—237. Southwest coast, off Hospital reef, bell buoy established. Newfoundland—238. Northwest approach to Belle Isle, banks reported.

No. 94. Oct. 9.—Nova Scotia—239. Atlantic coast, Pennant bay, Terance bay, light improved.

No. 95. Oct. 10.—Ontario.—240. Lake Superior, Pigeon bay, rocks located.

No. 96. Oct. 12.—British Columbia.—241. Vancouver island, east coast, Sidney, unchartered rock buoy established.

No. 97. Oct. 14.—New Brunswick.—244. Northumberland strait, Shediac harbor, Zephyr rock, lightship placed for autumn. Newfoundland.—245. Southern coast, Mistaken point, beacon indistinct. 246. South coast, Trepassy bay, off Powles head, whistling buoy.

No. 98. Oct. 14.—Ontario.—247. Georgian bay, west side, Cape Croker, change in character of light and fog alarm.

The following have been issued by the U.S. Hydrographic Department:

No. 38. Sept. 19.—Lake Erie.—1885. Maumee bay, Toledo harbor, middle ground buoy moved in position.

No. 39. Sept. 26.—Lake Erie.—1935. Huron harbor, probable obstruction in vicinity, caution. St. Lawrence river.—1936. New York, McNair shoal buoy to be discontinued. 1937. New York, Lower narrows gas buoy no. 2 to be discontinued.

No. 40. Oct. 3.—Lake Erie.—1990. Fairport, wrecks of Queen of the West and L.L. Lamb no longer menaces to navigation.

Maritime Provinces and Newfoundland.

The str. Crystal Stream, on a recent trip on the St. John river, ran on a rock near Rothesay, N.B., and had to be put on the blocks for repairs.

The steamships operated between Maritime Province ports and Jamaica, will in future give a bi-monthly service to Havana, Cuba, in addition to the present schedule.

The North American Transportation Co. is negotiating for a steamer to be placed on a route from Chatham, N.B., to Sydney, N.S., calling at Alberton, N.B., Malpeque, P.E.I.; New London, P.E.I., and the Magdalene islands.

The St. John, N.B., city council has ordered designs to be prepared for the construction of a steel ferry boat 120 ft. in length. Tenders will be called for early in Nov., and the steamer is required to be completed for the spring.

Press reports state that a company in which H. M. Whitney, of Boston, Mass., a director of the Dominion Iron and Steel Co., is interested, has been formed to establish a dry dock at Sydney, N.S. The cost of the proposed dock is \$1,250,000.

The Star Line Steamship Co.'s str. David Weston, running between St. John and Fredericton, N.B., was burned while on her regular trip recently, and three persons were drowned in escaping. The steamer was built in 1866, and had been practically rebuilt in 1901; she was valued at \$25,000, and was insured for \$10,000.

The Department of Marine has sold the lighthouse tender Acadia, hitherto engaged

in the service in the Maritime Provinces. The Acadia was bought from the U.S., where she was built for private owners in 1880. Her dimensions are: length, 182.5 ft.; breadth, 23.6 ft.; depth, 18.7 ft.; tonnage—gross, 520 tons; register, 354 tons.

The Dominion Coal Co.'s Black Diamond Line consists of the steamers Bona Vista, Coban, Louisburg, Cape Breton, Cacouna, two tugs and eight barges, which are engaged in its coal trade. It also has chartered 18 steamers, 13 of which are running on the St. Lawrence, two to Boston, Mass., one in the steel trade to the U.S., and two are on the local trade carrying lime stone.

The str. Pontiac, which was recently launched for J. W. Carmichael & Co. (Ltd.), New Glasgow, N.S., at Glasgow, Scotland, will have the following dimensions: length, 352 ft.; breadth, 48 ft. 3 in.; molded depth, 25 ft.; gross tonnage, 3,270 tons; dead weight capacity, 5,500 tons. The machinery consists of triple expansion engines, with cylinders, 25½ in., 42 in., and 68 in., by a 45 in. stroke, to which steam will be supplied by two large boilers.

The Hampstead Steamship Co. (Ltd.), has been incorporated under the New Brunswick Companies' Act for the purpose of operating passenger or freight steamers, tow boats or other vessels on the St. John river or elsewhere. The capital of the company is \$24,000; its head offices are to be at Oak Point, N.B. The provisional directors are: F. S. Mabey, R. K. Jones, L. A. Currey, St. John; H. E. Palmer, Oak Point; J. E. Waddell, Kingston, N.B.; J. H. Poole, Westfield, N.B.; J. N. Inch, Greenwich, N.B.

Province of Quebec Shipping.

The Richelieu and Ontario Navigation Co. declared the usual half-yearly dividend of 3%, payable Nov. 1.

The Dominion Coal Co. has added the steamers Troid and Priestfield to its coal-carrying fleet on the St. Lawrence.

The Richelieu and Ontario Navigation Co.'s str. Carolina has been floated off the rocks on the Saguenay river, the machinery, etc., having first been removed. The hull has been towed to Sorel, where she will be rebuilt.

The Dominion Government has purchased one of the Connolly dredges which has recently been working at Halifax, N.S. The dredge has been moved to Quebec, where it will be employed on the harbor improvements at that point.

The Montreal Harbor Commission has received from its engineer an estimate of \$2,000 for removing the sunken elevator of the Montreal Grain Elevating Co., which is a menace to navigation. The company has made two unsuccessful attempts to raise the elevator.

The chief engineer of the Montreal Harbor Commission has submitted plans of the steel freight sheds which it is proposed to construct on the new wharves. The plans show sheds 500 ft. long by 96 ft. wide, and two or three stories high, as desired. The total cost of the sheds is estimated at \$2,807,000.

The Knapp tubular boat people are once more pushing their project. A steamer is being constructed at Montreal by the Canadian Tubular Steamship Oil Transportation Co. upon the principle advocated. The vessel is 235 ft. in length, with a 22 ft. beam. It will cost \$25,000, and it is claimed will carry 8,000 barrels of oil.

The Dominion Government is constructing a dam across the St. Lawrence river, from Adams to Galops island, at the head of the Galops rapids. The object is to deepen the channel so as to allow deep draught boats to pass without obstruction. The U.S. Govern-

ment has approved of the dam, which extends across the International boundary.

The investigation of the charge against M. Connolly, owner of the str. Mersey, Capt. Gagnon and chief officer Barras, for causing the death of five men when the steamer sank, has not been completed, the court having been adjourned. The allegation is that the steamer was not properly equipped by the owner, and that the captain and mate abandoned the crew to their fate when the vessel struck.

Ontario and the Great Lakes.

The Dominion Fish Co. is having a tug built at Goderich.

An order has been placed at Kingston for the construction of a 72-ft. steel yacht for the Muskoka lakes.

Capt. W. Lawlor, operating ferry and other steamers on the Ottawa river, died at Hawkesbury, Ont., Oct. 9.

The Hall Company, of Ottawa, propose building a steamer to ply on the Rideau between Ottawa and Smith's Falls.

The act incorporating the Canadian Transportation and Storage Co. has been passed by the Dominion Parliament. (July, pg. 253.)

The Lake Ontario and Bay of Quinte Steamboat Co. is the latest addition to the list of members of the Dominion Marine Association.

R. S. Stonehouse has been appointed Marshal of the Exchequer Court for the Toronto Admiralty district, succeeding W. Boyd, deceased.

Abbey Bros., Owen Sound, have secured contracts for the construction of five small tugs for local owners, who are interested in towing on the Georgian bay.

The str. Tadousac, built by the Bertram Engine Works, Toronto, for the Victoria Lumber Co., was placed in service early in Oct., carrying grain from Fort William.

The str. Aletha, of Kingston, Ont., will be lengthened during the winter, and will be put into the passenger service in the spring on a route between Kingston, Ottawa and Montreal.

One of the steam barges owned by the Rainy River Navigation Co., Rat Portage, Ont., was recently burned on the Lake of the Woods, and is a total loss. She had only just been overhauled.

The Minister of Public Works recently stated in the House of Commons that it was proposed to dredge the Grand River from Dunnville to Port Maitland. The contract for this work has not been let.

The Ottawa Forwarding Co. has placed an order for the construction of a new passenger and freight steamer for the Rideau route. The steamer is to be built at Montreal, and will be ready for the opening of navigation.

Sand and Dredging (Ltd.), Toronto, has had built for its service on Lake Ontario, a scow-type, sand-pumping steamer. Her dimensions are: length, 116 ft.; breadth, 27 ft.; depth, 6 ft. She is fitted with propelling and pumping machinery.

The Dominion Parliament has voted \$20,000 for surveys of the Ottawa river and tributaries, with a view of devising a scheme for the regulation of the water levels of the upper reaches of these streams so as to afford increased facilities for navigation purposes.

The Minister of Marine has been asked to direct the making of a hydrographic survey of Lake Temagami. The Temiskaming & Northern Ontario Ry. touches the lake about 60 miles from North Bay, and a steamship service has been opened upon it this summer.

In the House of Commons recently the Minister of Finance stated that the total cost of the improvements contemplated at Port

Colborne, at the Lake Erie end of the Welland canal, amounted to \$1,067,876, and that it would take another year to complete the work.

The New Ontario Steamship Co., which has its headquarters in Hamilton, Ont., has received from the Clyde a new steamer, 253 ft. over all, and 40 ft. in breadth. At her launching she was named the Neepawah by Mrs. W. G. Walton, wife of the President of the company.

Capt. Dane has purchased the U.S. steamer Riverside, at Buffalo, N.Y., for the Brockville, Alexandria Bay, Ogdensburg route, to replace the str. Massena, destroyed by fire. The Riverside was built in 1892, her dimensions being: length, 84 ft.; breadth, 19 ft.; tonnage—gross, 124 tons; register, 90.

The tug Reliance owned by the Midland Towing and Wrecking Co., of Midland Ont., was burned recently at Spanish River, Ont. The hull has been raised and towed to Collingwood where it will be rebuilt. The Reliance was built at Collingwood in 1892, her dimensions being: length, 124 ft.; breadth, 23 ft.; depth, 11 ft. 6 in.; tonnage—gross, 311 tons; register, 182.

The Lake Carriers' Association is considering the proposal to cut a canal across St. Clair Flats, Ont., about 30 miles in length. The canal would cut Detroit, Mich., off from the marine world entirely, would save seventy-nine miles of the present course, and the ships using the canal would avoid the dangers of Ballard's reef, the Lime Kiln crossing, Bar Point, Colchester Reef and Point Pelee.

The total freight passing through the Canadian and the U.S. canals at Sault Ste. Marie, in Sept., was 4,265,650 tons, against 4,673,532 tons in Sept., 1902. The figures for the Canadian canal are:

	1902	1903	Increase or Decrease.
April	1,597,793 tons	1,909,926 tons	312,133 tons
May	636,747 "	511,882 "	124,865 "
June	917,105 "	1,118,564 "	201,459 "
July	840,000 "	924,475 "	84,475 "
Aug.	871,150 "	650,848 "	220,302 "
Sept.	1,000,000 "	79,289 "	920,711 "
	4,122,693 tons	3,367,577 tons	755,116 tons +

+ increase. — decrease.

A despatch from Chicago says: The great activity among Canadian and English ship-building industries, which are building vessels for the export grain trade on the great lakes, is causing much alarm among American vessel owners. Canadian capitalists are making swift strides toward controlling transportation of grain from the head of the lakes, and in time from Chicago and other important shipping ports. They have been quick to see the advantages of the Canadian routes to the seaboard as compared with the American routes, and no time is being lost in building boats to carry out the purpose. Large steel steamers

are being turned out by the Canadian yards as rapidly as they can build them. There evidently is ample ground for anxiety among American vesselmen, since they are helpless to remedy the combination of circumstances which has prompted the foreign interests aggressively to seek their commerce. The American rates for transportation to the seaboard are prohibitive as compared with figures the Canadians are prepared to offer. The latter are said to have the advantage because they are not compelled to submit to excessive demands of labour unions and can carry the grain at much lower figures.

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EVERYTHING UP-TO-DATE.

In Ladies' Ready-to-Wear we are showing a select stock. Prices reasonable.

Ladies, now is the time to have your Furs repaired and remodelled. Fur Show Rooms open at all seasons.

Catalogue and Price List sent on application.

Holt, Renfrew & Co.
TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1902, gives the following statistics for the year:

ACRES.	CROPS.	
	AVERAGE YIELD.	TOTAL.
Wheat.....2,039,940	26. bus.	53,077,267 bus.
Oats.....725,060	47.5 "	34,478,160 "
Barley.....329,790	35.9 "	11,848,422 "
Potatoes.....22,095	157. "	3,459,325 "

STOCK.

Number of stock in the Province, July 1, 1902:
Horses.....146,591 Sheep.....20,518
Cattle.....282,343 Pigs.....95,598
Value of Dairy Products.....\$926,314

15,000 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1902—and the demand was not fully satisfied.

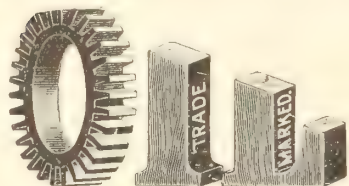
MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,000,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 500,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

For full information, maps, etc., FREE, address JAMES HARTNEY, Manitoba Emigration Agt., 77 York Street, Toronto, Ont.
Or J. J. GOLDEN, Manitoba Emigration Agt., 617 Main St., Winnipeg, Man.



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VACUUM 600 W. CYLINDER
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300 Fire Test, for Illuminating Purposes

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LOW COLONIST RATES

TO NORTH-WEST AND CALIFORNIA

Especial Low Rates Homeseekers' Excursions, Sept. 15th, Oct. 20th

To all points in Louisiana and Mississippi, \$16.00 from Chicago.

To all Texas points on the Southern Pac. Ry. at proportionate rates.

The Local Agent is asked to note Cheap Rates to all the North-West, also to California from Sept. 15 to Nov. 30, nearly \$20 less than regular second-class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. July folder is a good one. Get it!

G. B. WYLLIE,

Canadian Passenger Agent,

210 ELLICOTT SQUARE, BUFFALO, N.Y.

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Manitoba and Northwest Territories.

Tenders have been asked for in Prince Albert, Sask., for the supply of materials for the construction of the hull of a steamer on the Saskatchewan river for Mosher Bros., Fort Frances, Ont.

A bill has been introduced in the House of Commons by the Minister of Marine providing for regulating the operation of ferry boats by cable, swing bridges, etc. The measure has a special importance on the rivers of Manitoba and the Northwest Territories, where there are a large number of these ferries.

The recent trip of inspection made by G. P. Phillips of the steamers and other vessels engaged in trading on the lake and river navigation stretching from Athabasca Landing to the Arctic ocean, has drawn special attention to this important but little known inland water way. He inspected 12 steamers on the trip, travelling altogether 5,000 miles from Edmonton, Alta., in order to do so. Of these twelve steamers only five are included in the list of vessels registered with Minister of Marine on Dec. 31, 1902, but eight are mentioned in the report of the Minister as not having been inspected for the year ended June 30, 1902. Three of the steamers are owned by the Hudson Bay Co., three by Hislop and Nagle, four by different missions, but the owners of the remaining two are not given. The following particulars relating to the different steamers have been obtained from the official records and other sources: The Athabasca, a stern wheel steamer owned by the Hudson Bay Co., was built at Athabasca Landing, Atha., in 1888. Dimensions: length, 146 ft.; breadth, 28.4 ft.; depth, 4 ft.; tonnage—gross, 167 tons; register, 105. The Athabasca has been laid up for some time. The Grahame, owned by the Hudson Bay Co., is a stern wheel str. built at Fort Chippewyan, Atha., in 1896; dimensions: length, 140 ft.; breadth, 24 ft.; depth, 4.6 ft.; tonnage—gross, 360 tons; register, 233; a passenger and freight steamer operating on the Athabasca and Slave rivers. The Wrigley, owned by the Hudson Bay Co., is a screw str. built at Fort Smith, Mackenzie, in 1898. Dimensions: length, 86 ft.; breadth, 16 ft.; depth, 7 ft.; tonnage—gross, 105 tons; register, 67 tons; a passenger and freight steamer operating on the Mackenzie river. The Eva, owned by Hislop and Nagle, is 62 ft. long by 12 ft. beam; and makes a yearly trip between Fort Smith and the Little Red river. The Netta, owned by Hislop and Nagle, is 55 ft. long by 10 ft. beam, and trades exclusively on Great Slave lake. The Alpha, also owned by Hislop and Nagle, is 55 ft. long by 9 ft. beam, 7.50 tons gross, 4.98 tons register, and trades between Fort McMurray and Fort Smith. The owners of the following steamers do not appear in the records: Lilian B., screw tug, 4 tons gross, 1.08 tons register, operating on Slave river; Sparrow, screw passenger and freight steamer, trading on the Mackenzie river, 49.28 tons gross, and 27.90 tons register. Two of the mission steamers are new, only having been completed in 1902; they were built at Peterborough, Ont., and were taken to Athabasca Landing, where they were put together. The other mission steamers are: The St. Joseph, a mission steamer, a stern wheeler, built at Fort Chippewyan, Atha., in 1893. Dimensions: length, 59 ft.; breadth, 9.5 ft.; depth, 4 ft.; tonnage—gross, 27 tons; register, 16 tons. The screw str. St. Alphonse is also a mission boat, and was built at Fort Smith, Atha., in 1897. Dimensions: length, 54 ft.; breadth, 10.5 ft.; depth, 4.8 ft.; tonnage—gross, 28 tons; register, 15 tons.

The C.P.R. has organized a series of winter trips from Vancouver to New Zealand, calling at the Hawaii and the South Sea islands. The first trip has been fixed for Nov. 13.

B.C. and Pacific Coast Shipping.

Capt. Locke, of the C.P.R. str. Danube, it is reported, will be appointed to the Princess Victoria in succession to the late Capt. Rudlin.

The C.P.R. str. Princess Victoria recently made the trip between Vancouver and Victoria, B.C., in the record time of 3 h. 43 mins., cutting off five minutes of the previous record—her own—made Aug. 18.

Plans are being prepared by the Dunsmuir estate for the construction of a turbine steamer for the coal trade, and for a car barge to operate on the ferry between Ladysmith and Vancouver, B.C.

There are many rumors afloat in Vancouver and Victoria respecting some possible changes in the Pacific Coast Steamship Co.'s service, and the possibility of the C.P.R. putting on one or more steamers to run to San Francisco. It is not thought that there is any real foundation for any of the statements made in respect of these matters.

Capt. Geo. Rudlin of the C.P.R. str. Princess Victoria, died suddenly in Vancouver, B.C., recently, aged 67 years. Capt. Rudlin was born in Essex county, Eng., and after spending some years in coasting vessels in England, came to San Francisco in 1856, and reached Esquimalt in 1859. He had charge of several schooners in the coal and lumber trade until 1865, when he was engaged in the steam towing business. He was one of the founders of the B.C. Towing and Transportation Co., and was subsequently with the Spratts, whose steamers were taken over by the C.P. Navigation Co., which was later on acquired by the C.P.R. He was the senior captain on this service, having commanded the various steamers in turn. He was ten years in charge of the Charmer, and was given charge of the Princess Victoria on her completion this year.

The pilotage on the St. Lawrence river from Montreal to the Saguenay river has been placed under the control of the Department of Marine. The ocean shipping interests have advocated this change for some years.

The C.P.R. Atlantic steamships will be placed on the following routes for the winter: from St. John, N.B., to Liverpool, the Lake Manitoba, Lake Erie, and Lake Champlain, giving a fortnightly service; from St. John, N.B., to Bristol, the Montague, Montcalm and Montfort, giving a fortnightly service; and St. John to London and Antwerp, the Mount Temple, Lake Michigan, Montrose, and Monmouth, giving a fortnightly service. The Montezuma, Montreal, Milwaukee, and Mount Royal will be engaged in carrying cotton from New Orleans, La., to Liverpool.

At the instance of the Minister of Marine the House of Commons was asked to assent to several changes in the law respecting the investigation of shipping casualties. The amendments, which it proposed to incorporate in the act, provide that stranding as well as abandoning may be a cause of investigation; that instead of the court being composed as previously entirely of nautical men, a judge or stipendiary magistrate may be appointed; that default as well as misconduct may be found against an officer; that no certificate shall be suspended or cancelled unless at least one of the assessors concurs in the finding of the court, and that no certificate shall be cancelled or suspended unless the holder shall have been supplied with a copy of the report or statement on which the investigation has been ordered and he has had an opportunity of defence.

The Minister of Marine recently sent the following memorandum to the Montreal Board of Trade in reference to the work of the tidal survey, and the charting of the Atlantic coast line: "The St. Lawrence, from Quebec to the

Saguenay, the only portion in which there is intricate navigation, has been re-surveyed in recent years by the Admiralty, and this department is satisfied that the new charts resulting from that survey, as corrected from time to time from information furnished by it, are accurate. The Gulf, off the east end of the Island of Anticosti, has also been recently re-surveyed at the joint expense of the Admiralty and the Dominion Government. This work was done because it was claimed that the numerous wrecks there resulted from inadequacies in existing charts, but no new dangers were discovered by the re-survey. The whole Newfoundland coast has also been re-surveyed by the Admiralty. With regard to the survey of the tides and currents in Canadian waters, as the Board of Trade probably knows, work is actually being prosecuted. Our tide tables, as now published, are admitted to be both correct and comprehensive. Reports on the currents in the river and gulf have been published and extensively circulated amongst mariners, and Dr. Dawson, the engineer in charge of this work, is now engaged in investigating the currents off Cape Race, in view of the numerous casualties in that district, although the waters in question are outside of Canadian jurisdiction."

Among the Express Companies.

The Denver and Rio Grande Ex. Co. has been acquired by the Globe Ex. Co., and hereafter will be known by that title.

The Canadian Ex. Co. has placed its service on the Riviere Ouelle branch of the I.C.R. from Riviere Ouelle station to St. Denis wharf, Que.

The Western Ex. Co. has opened offices at Laurium, Mackinaw City, Mills, Mich.; Bulwer Junction, Minn., and has reopened its office at Newhall, Mich.

The Canadian Ex. Co. has opened offices at Leitches Creek, N.S., and St. Denis wharf, Que., and closed its offices at Allandale, Ormsby, Sherks, Ont., and Covered Bridge, N.B.

The White Pass and Yukon Route has arranged its winter stage line from Whitehorse to Dawson City, Yukon Territory, and will, as usual, carry a limited amount of express matter over it.

The British-America Ex. Co., operating on the Algoma Central and Hudson Bay Ry., and the steamship line operated between Sault Ste. Marie, Ont., and lake points on Lakes Huron and Superior, is one of the subsidiary companies owned by the Consolidated Lake Superior Co.

The following territory of the Dominion Ex. Co. in British Columbia is included in the general term "Kootenay Points": all points south of Revelstoke, to and including Arrowhead, Castlegar Jct., Trail, Rossland, Nelson, Pilot Bay, Lardo and intermediate points, not including Revelstoke or any point south of Pilot Bay, or west of Castlegar Jct.

The Dominion Ex. Co. gives notice that on account of the irregular train service on the Algoma Central and Hudson Bay Ry. shipments for offices of the British North America Ex. Co., which includes the following points, should, until further notice, be accepted only subject to delay at Sault Ste. Marie, Ont.: Agawa, Achigan, Bellevue, Birchcamp, Goulais, Helen Mine, Michipicoten, Ogidaki, Pine Camp, Searchcamp, Spruce Camp, Waaboo, Wa Wa, Wildie.

Telegraph and Cable Matters.

The Newfoundland Government has opened a telegraph office at Bay Verte mine.

The U.S. cable connection between Seattle, Wash., and St. Michael, Alaska, has been completed.

The G.N.W. Telegraph Co. has closed its offices at the following points: New Germany,

Sutherland's Corners, Ont.; Little Watichou, Rocky Bay, Que.

The receipts of the Pacific Cable Board for the year ended Mar. 31, according to a return issued by the Imperial Government, amounted to £1,960,781.

The Halifax-Bermuda Cable Co., for the year ended June 30, made a net profit of £3,245 and carried forward £745 after providing for a dividend of 2½%.

The C.P.R. Telegraph department is erecting a station at Golden, B.C., to which it is proposed to remove its telegraph relay station for the Vancouver-Winnipeg lines, at present maintained at Donald, B.C.

The Newfoundland Government has laid a cable from Pilley's island to the mainland of the colony and made a connection with the main telegraph line at Hall's Bay. A tele-

graph office has been established at Phillip's Island.

Colonel R. C. Clowry, President Western Union Telegraph Co., and C. Tripp, of the Anglo-American Cable Co., recently completed an inspection of the property of these companies in Nova Scotia, New Brunswick and Newfoundland.

The Halifax (N.S.) city council is being asked to approve of a new plan of assessment, in which it is recommended that a special tax of \$400 shall be levied upon telegraph companies, and \$200 upon cable companies doing business in the city.

The C.P.R. Telegraph department has recently opened offices at the following points: Antler, Morse, Northwest Territories; Kalm, Ont.; and closed its offices at the following places: Amigari and Caledonia Springs Hotel, Ont.; Deschene Mills and Papineauville station, Que.

The condition of the telegraphic service in Prince Edward Island was the subject of a recent discussion in the Senate, and the Government was asked to take steps to acquire the lines owned by the Anglo-American Cable Co., connecting with and upon the island.

The Yale-Kootenay Telegraph Co. elected the following at its annual meeting: President, L. W. Hill, St. Paul, Minn.; Secretary-Treasurer, A. M. Thomas, Spokane, Wash.; Attorney, A. H. MacNeill, Rossland, B.C.; other directors: G. A. Keating, M. M. Stephens, Rossland, B.C.

The G.N.W. Telegraph Co.'s shareholders held their annual meeting in Toronto recently. The statements submitted at the meeting showed that the year ending June 30 had been the most prosperous in the history of the country. Officers were elected as follows: President, H. P. Dwight; Vice-President, A. Brown, Hamilton, Ont.; General Manager,

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E. HAY - - - Asst. General Manager.
W. MOFFAT - - Chief Inspector.

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Isaac McMichael; directors, R. Fuller, A. S. Irving, W. C. Matthews, J. Hedley, H. N. Baird, Col. R. C. Clowry, Hon. Wm. McDougall; Secretary-Treasurer, George D. Perry; Auditor, A. C. McConnell. The official statement says that the reports, which have been actively circulated of late as to the absorption of the G.N.W. by the Western Union Telegraph Co., have been without the slightest foundation. There have been no negotiations whatever in this direction. The G.N.W. Telegraph Co. will remain, as heretofore, a strictly independent Canadian company, under Canadian management, continuing its exclusive connection with the Western Union Co., both companies being actively engaged in extending their lines and improving their local and international service. The relations between the companies and their respective managers have always been, and are still, perfectly harmonious and friendly.

The 20th anniversary of the commencement of operation by the C.P.R. telegraph department was celebrated Sept. 1, and the Manitoba Free Press, in referring to the event, said: Very few of the original operators are with the company after this lapse of time, but B. S. Jenkins, who was first superintendent, and to whom the onerous task of construction and development was entrusted, is still at the head of the Western lines he has built. Mr. Jenkins' appointment was due to the influence of Sir William Van Horne; at that time he was the youngest superintendent on the continent of America. Mr. Jenkins' original appointment was as Superintendent of the western division; but four years ago he was appointed General Superintendent of western lines. The system at its inauguration extended from Port Arthur to Calgary, with branches to Emerson, Gretna, Manitou, Glenboro and Stonewall. There were almost 1,600 miles of poles and 2,800 miles of wires. In contrast to this, and as a proof of the manner in which the company has endeavored to keep pace with the rapid development of the western country, it may be stated that at the end of 1902 it had 3,700 miles of poles and over 15,000 miles of wire, in the same territory. Extensive additions are being made this year, following new lines of railway and providing increased wire facilities over existing lines. The pole mileage of the western division is now greater than that of the eastern division, while the wire mileage is about the same. Twenty years ago the Winnipeg office employed 10 men, two of them at night. To-day it has more than 100 in this department. To-day its system runs from Canso to the western coast of Vancouver Island, connecting with the Commercial Co.'s system at the former place, and with the All-British Pacific cable at the other. Twenty years ago almost the whole of the operating was done by the station agents, but at present the necessities of the business demand the appointment of increasing numbers of operators devoting the whole of their time to the telegraphic business of the company.

British Columbia Telephones, Limited.

The following report for the year ended June 30 was presented at the annual meeting at Huddersfield, Eng., Oct. 21. The expenditure for improvements and extensions during the year was £7,334. The purchase of the plant of the Columbia Telephone and Telegraph Co. involved a further expenditure of £7,668. A new switchboard is being installed in the Victoria exchange on the central energy system. This will necessitate the purchase of new instruments for all subscribers there, involving a total expenditure of, at least, £15,000. At the last session of the Provincial Legislature an act enabling the Company to lay a cable connecting the mainland and Vancouver island was obtained; the

cost of the cable and land lines necessary will be, it is estimated, about £35,000. Owing to the heavy but necessary expenditure above mentioned, and that contemplated, the directors of the subsidiary companies have decided to carry forward the whole of the balances standing to the credit of their respective profit and loss accounts. The directors, therefore, regret that they are unable to pay any dividend on the ordinary shares. At the meeting a scheme for the reorganization of the Company, transferring the head office to British Columbia and increasing the debenture issue, will be submitted for consideration. The balance from last year's account is £322 14s. 2d. The directors have transferred from reserve fund £4,500, making a total of £4,822 14s. 2d., out of which have been paid: Expenses of English office, £146 4s.; income tax, £376 3s. 8d.; bank interest and charges, £164 13s. 3d.; interest on debenture stock to June 30, 1903, £1,270 19s. 6d.; dividend on preference shares to June 30, 1903, £1,694 12s. 8d.; total, £3,652 13s. 1d., leaving a balance to provide for directors' remuneration and to carry forward to next year's account of £1,170 1s. 1d. W. E. Wimpenny retires from the directorate by rotation.

The balance sheet shows the capital and liabilities of the Company to be £112,926 10s. 6d. The assets are shares in the Victoria and Esquimalt Telephone Co. and the New Westminster and Burrard Inlet Telephone Co., which include the shares in subsidiary companies, £88,380 3s.; profits from and amounts owing by subsidiary companies, £24,498 4s. 6d.; cash in bank, £48 3s. The profits earned by subsidiary companies for the year ended June 30 and not distributed were £12,686 17s. 8d. The directors for the past year were Dr. J. M. Lefevre, chairman; W. E. Wimpenny, W. Farrell.

General Telephone Matters.

The Bell Telephone Co. is putting up a local telephone system at Emerson, Man.

The Bell Telephone Co. has opened its long distance line between Sault Ste. Marie and Thessalon, Ont.

The Bell Telephone Co. is laying conduits in Sherbrooke, Que., preparatory to placing its wires underground.

The Vernon and Nelson Telephone Co. is negotiating with the Phoenix, B.C., city council for permission to erect additional lines in the city.

The Hamilton, Grimsby and Beamsville Electric Ry. Co. has installed new telephones on its system between Hamilton and Beamsville, Ont.

The Bell Telephone Co. has completed the installation of an office telephone system at the works of the Stovel Co., on McDermot, King and Arthur streets, Winnipeg.

F. C. Paterson, Manager of the Bell Telephone Co. for the Northwest Department, has purchased a house in Winnipeg, and has removed his family there from Brandon, Man.

C. F. Phillips of Baltimore, Md., who was consulted by the Montreal city council relative to the construction of a conduit system in that city, has presented a report and plans to the council.

The Citizens' Telephone and Electric Co. of Rat Portage (Ltd.), having transferred its lines, franchises, etc., to the Rat Portage, Ont., town council, has wound up its affairs in liquidation.

The Edmonton Telephone Co. is negotiating with the Edmonton, Alta., city council for a franchise. The council is desirous of adding a clause authorizing the construction of a municipal system.

The municipal telephone plant at Port Arthur and Fort William, Ont., is reported to be

giving good service. An additional section to the switchboard at the Port Arthur exchange is being installed.

The Bell Telephone Co. is constructing a long distance line between Cardston and Edmonton, Alta., along the line of the Calgary and Edmonton Ry. The company is negotiating with the Edmonton city council for an entrance there.

The Victoria Telephone Co., Victoria, B.C., is fitting up its new office and exchange on the upper floors of the Bank of Montreal building, and intends moving there by the end of the year. A new central energy switchboard is being installed in the new exchange.

Rapid progress is being made with the construction of the addition to the Bell Telephone Co.'s building in Toronto. The enlarged main exchange will be double the size of the present one, and is being fitted up on the most modern lines. It is expected that it will be completed by the beginning of 1904.

The telephone committee of the Ottawa city council has recommended the granting of a five years' franchise to the Bell Telephone Co., at \$45 a year for business houses, \$20 a year for private houses, and the payment of \$1,500 a year to the city treasurer, together with 40 free instruments for civic use.

The Humber Power and Light Co. recently made application to the Toronto Junction town council for a franchise, and it was resolved, as a basis of the general privilege granted, that the company might charge \$6 a year and 1 cent per call up to a maximum of \$15 a year for private houses, and \$25 for stores, until such time as the company may be able to connect with Toronto, when the maximum may be \$20 for houses and \$40 for stores. The privilege applies to a radius of 15 miles around the town.

The Nova Scotia Telephone Co. has extended its conduit system in Halifax during the year one mile, and has put in two miles of cable, making in all about 2½ miles of conduit work completed. It has repaired about 150 miles of long distance line in various parts of the province. It has strung additional wires on its long distance lines between Halifax and Windsor, Chester and Lunenburg, Halifax and Shubenacadie, Halifax and New Glasgow, Truro and Acadia Mines; and is also putting up a new line from Antigonish to the Strait of Canso.

The Eastern Telephone Co. has completed the reconstruction of its line in Sydney, N.S., and has put in about 2,000 ft. of conduit work to accommodate its increasing business. It has also put in about 700 ft. of cable. At Glace Bay it has put in a metallic system, and has completed its exchange at Sydney Mines. It is putting up a line from Sydney to Hawkesbury, via Grand Narrows and Orangedale, and expects to have the line completed in Dec. The E.T. Co. has acquired the Inverness and Victoria Telephone Co., and the Union Telephone Co. The Inverness and Victoria Telephone Co. had a line from North Sydney to Whycomagh, and the Union Telephone Co. from Whycomagh to Hawkesbury and Arichat. A considerable portion of these lines will be abandoned, especially between Orangedale and Hawkesbury, and the company will rebuild a portion of the old line between North Sydney and Orangedale. It is also about to build another line from Hawkesbury to Port Hood, running along the railway line of the Inverness Ry. and Coal Co.

The New Brunswick Telephone Co. has the following exchanges:—St. John, in the Company's own new building, equipped with central energy system, about 2,000 subscribers; Fredericton, about 400 subscribers; Moncton, about 300 subscribers; Woodstock and St. Stephen, about 150 subscribers each; St. Andrews, Sussex, Dorchester, Shediac, and

Sackville, an average of 35 subscribers. The Company operates the following long distance lines:—Chatham to Fredericton, 125 miles, copper metallic circuit; Grand Falls to Fredericton, 135 miles, double copper metallic circuit; Woodstock to Houlton, Me., 12 miles, copper metallic circuit, connecting with New England telephone system in Maine; Fredericton to St. John, 95 miles, two copper metallic circuits; St. John to St. Stephen, 85 miles, copper metallic circuit, connecting at Calais, Me., with New England telephone system for U.S. points; St. John to Moncton, 95 miles, two copper metallic circuits, connecting at Norton with the Chipman Telephone Co.; Moncton to Shediac, 20 miles, single iron circuit; Moncton to Buctouche, 35 miles, single metallic circuit; Moncton to Hillsboro', 30 miles, single metallic circuit; Moncton to Sackville, 45 miles, two metallic circuits, copper and iron, connecting at Amherst with the Nova Scotia Telephone Co.'s system for all its offices. The N.B. Telephone Co. has about 90 long distance offices. Its headquarters are at Fredericton. President, Hon. A. G. Blair; Vice-President, J. L. Black; Managing Director, Hon. F. P. Thompson; Sec.-Treas., W. E. Smith.

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PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

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Steamboats	
Polson Iron Works	Toronto.
Steamboat Signs	
Acton Burrows Co	Toronto.
Steam Couplers	
Safety Car Heating and Lighting Co.	New York.
Steam Shovels	
James Cooper	Montreal.
W. H. C. Mussen & Co.	Montreal.
Steel	
James Cooper	Montreal.
B. J. Coghlin & Co.	Montreal.
Wm. Jessop & Sons	Sheffield, Eng.
Rice Lewis & Son	Toronto.
Steel Buildings	
Dominion Bridge Co.	Montreal.
Steel for Springs	
James Hutton & Co.	Montreal.
Steel Plate	
Jas. W. Pyke & Co.	Montreal.
Steel Tyres	
B. J. Coghlin & Co.	Montreal.
James Hutton & Co.	Montreal.
Latrobe Steel Co.	Philadelphia, Pa.
Jas. W. Pyke & Co.	Montreal.
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The Hiram L. Piper Co.	Montreal.
The N. L. Piper Railway Supply Co.	Toronto.
Switch Locks	
The Hiram L. Piper Co.	Montreal.
Switch Ropes	
The B. Greening Co.	Hamilton, Ont.
Switch Targets	
Acton Burrows Co	Toronto.
Tanks and Tank Fixtures	
Ontario Wind Engine and Pump Co.	Toronto.
Telegraph and Telephone Office Signs	
Acton Burrows Co	Toronto.
Tie Plates	
B. J. Coghlin & Co.	Montreal.
Tobacco and Cigars	
The Hudson's Bay Company	
Toilet Paper	
The Hudson's Bay Company	
Tools	
Rice Lewis & Son	Toronto.
Track Jacks	
James Cooper	Montreal.
W. H. C. Mussen & Co.	Montreal.
A. O. Norton	Coaticook, Que.
Track Tools	
Canada Switch and Spring Co.	Montreal.
James Cooper	Montreal.
Rice Lewis & Son	Toronto.
W. H. C. Mussen & Co.	Montreal.
The Hiram L. Piper Co.	Montreal.
Tramway Equipment	
James Cooper	Montreal.
W. H. C. Mussen & Co.	Montreal.
J. J. Gartshore	Toronto.
Trucks (Electric Car)	
Baldwin Locomotive Works	Philadelphia, Pa.
Montreal Steel Co.	Montreal.
Trucks (Warehouse and Express)	
Rice Lewis & Son	Toronto.
Turntables	
Dominion Bridge Co.	Montreal.
Varnishes	
McCaskill, Dougall & Co	Montreal.
Vessels	
Polson Iron Works	Toronto.
Waste	
B. J. Coghlin & Co.	Montreal.
Rice Lewis & Son	Toronto.
N. L. Piper Ry. Supply Co.	Toronto.
The Queen City Oil Co	Toronto.
Wheelbarrows	
James Cooper	Montreal.
Rice Lewis & Son	Toronto.
Windmills	
Ontario Wind Engine and Pump Co.	Toronto.
Window Blinds	
The Hudson's Bay Company	
Wines and Liquors	
The Hudson's Bay Company	
Wire and Wire Rope	
Dominion Wire Rope Co.	Montreal.
The B. Greening Co.	Hamilton, Ont.
Rice Lewis & Son	Toronto.
W. H. C. Mussen & Co.	Montreal.
The Wire and Cable Co.	Montreal.
Wire, Brass and Steel	
Dominion Wire Manufacturing Co.	Montreal.

Wire Cloth

The B. Greening Co. Hamilton, Ont.

Wire, Copper

Dominion Wire Manufacturing Co. Montreal.
E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire, Electric

Dominion Wire Manufacturing Co. Montreal.
E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire Goods

Dominion Wire Manufacturing Co. Montreal.

Wire, Insulated Copper

E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire, Telegraph and Telephone

Dominion Wire Manufacturing Co. Montreal.
E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire, Transmission and Trolley

Dominion Wire Manufacturing Co. Montreal.
The Wire and Cable Co. Montreal.

Wood Screws

Dominion Wire Manufacturing Co. Montreal.

Yachts

Polson Iron Works. Toronto.

In an advertisement by a railway company of some uncalled for goods the letter "I" had dropped from the word "lawful," and it read: "People to whom the packages are directed are requested to come forward and pay the awful charges on the same."

W. B. Coulsell, agent of the Canadian-Australian Line of steamships at Melbourne, Australia, who was in Montreal recently, stated that T. Tait has made himself quite at home with his duties as Chairman of the Commissioners having charge of the Government railways in Victoria.

The C.P.R. gives notice that freight consigned for local delivery at stations on the Quebec Southern Ry. will only be accepted for transportation when charges are prepaid. This does not apply to freight destined to points beyond the Q.S.R., such as stations on the Rutland Rd., etc.

The Transportation Commission appointed by the Dominion Government to investigate transportation problems will meet for organization early in Nov. The commissioners will take evidence from all parties desiring to appear before them respecting the transportation question, and their meetings will be open to the public.

The Maritime Engineering Co. (Ltd.) has been incorporated under the New Brunswick Companies' Act, with a capital of \$30,000, to carry on at Moncton, N.B., a general engineering business, and in connection therewith to build and engine vessels. The provisional directors are: J. P. Weir, P. S. Archibald, F. W. Givan, G. Baxter, Moncton; J. Wood, Sackville, N.B.

The Canadian, Australasian and Puget Sound Steamship Co. has been organized at Tacoma, Wash., and press reports stated that the G.T.R. had made arrangements in connection with it to ship freight on a through basis to Australia and New Zealand. R. S. Logan, assistant to the 2nd Vice-President and General Manager, states that there is nothing in the matter so far as the G.T.R. is concerned.

The Canadian Northern Transfer Co. (Ltd.) has been incorporated under the Dominion Companies' Act, with a capital of \$500,000, to transfer passengers and freight from place to place, and for the storage and warehousing of freight. The head offices are at Winnipeg, and the provisional directors are solicitors' clerks, etc. The company is being organized in connection with the Canadian Northern Ry. and it is believed that it will do that road's transfer business at Winnipeg and other points. At present the cartage for the C.N.R. at Winnipeg is done by the Shedden Co., which made a contract with the Northern Pacific Ry. when that line first entered Manitoba.

Put wire cloth on goods - here

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Accident Insurance

Canadian Ry. Accident Ins. Co. Ottawa, Ont.
Travelers' Insurance Co. Montreal.

Aerated Waters

E. L. Drewry Winnipeg.

Air Brakes & Fittings

Westinghouse Mfg. Co. Hamilton, Ont.

Ales

E. L. Drewry Winnipeg.

Anchors

Rice Lewis & Son Toronto.

Axies

James Hutton & Co. Montreal.
Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Babbitt

Rice Lewis & Son Toronto.

Blankets & Bedding

The Hudson's Bay Company

Block & Tackle

Dominion Wire Rope Co. Montreal.
Rice Lewis & Son Toronto.

Boat Fittings & Hardware

Rice Lewis & Son Toronto.

Boiler Covering

Mica Boiler Covering Co. Montreal.

Boilers

Polson Iron Works Toronto.

Boiler Tubes

B. J. Coghlin & Co. Montreal.
Jas. W. Pyke & Co. Montreal.

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts

Rice Lewis & Son Toronto.

Bolts, Boiler Patch

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Brake Beams

Simplex Railway Appliance Co. Montreal.

Brass and Copper Cloth

The B. Greening Co. Hamilton, Ont.

Brass Castings

St. Thomas Brass Co. St. Thomas, Ont.

Bridge Numbers

Acton Burrows Co. Toronto.

Bridges

Dominion Bridge Co. Montreal.

Buoy Lighting

Safety Car Heating and Lighting Co., New York

Cables, Electric and Feeder

E. F. Phillips Electrical Works, Ltd., Montreal.
The Wire and Cable Co. Montreal.

Car Couplers

Latrobe Steel and Coupler Co., Philadelphia, Pa.

Car Heating

Safety Car Heating and Lighting Co., New York

Car Jacks

James Cooper Montreal.
W. H. C. Mussen & Co. Montreal.

Car Lighting

Safety Car Heating and Lighting Co., New York

Carpets

The Hudson's Bay Company

Cars

Rhodes, Curry & Co. Amherst, N.S.

Car Wheels

Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Castings

Montreal Steel Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Cement Machinery

Jas. W. Pyke & Co. Montreal.

Chains

Rice Lewis & Son Toronto.

Coal Haulage Ropes

The B. Greening Co. Hamilton, Ont.

Concrete Mixers

W. H. C. Mussen & Co. Montreal.

Contractors' Plant

James Cooper Montreal.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Otter Pins

Dominion Wire Manufacturing Co. Montreal.

Cross Arms, Top Pins & Side Blocks

The Firstbrook Box Co. Toronto.

Crossing Gates

The N. L. Piper Railway Supply Co. Toronto.

Curtains

The Hudson's Bay Company

Cuts

Acton Burrows Co. Toronto.

Derrick Ropes

The B. Greening Co. Hamilton, Ont.

Derricks

James Cooper Montreal.

Door Signs

Acton Burrows Co. Toronto.

Dry Goods

The Hudson's Bay Company

Electric Car Route Signs

Acton Burrows Co. Toronto.

Electric Cranes

Dominion Bridge Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Enameled Iron Signs

Acton Burrows Co. Toronto.

Engines, Stationary & Marine

Polson Iron Works Toronto.

Engraving

Acton Burrows Co. Toronto.
Toronto Engraving Co. Toronto.

Expanded Metal

Expanded Metal and Fire-Proofing Co. Toronto.

Express Office Signs

Acton Burrows Co. Toronto.

Fencing

Canadian Steel and Wire Co. Hamilton, Ont.
Dominion Wire Manufacturing Co. Montreal.
Page Wire Fence Co. Walkerville, Ont.

Fire-Proofing

Expanded Metal and Fire-Proofing Co. Toronto.

Flags

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Flour

The Hudson's Bay Company
The Ogilvie Flour Mills Co. Montreal.

Foghorns

Rice Lewis & Son Toronto.

Gates

Page Wire Fence Co. Walkerville, Ont.

General Supplies

The Hudson's Bay Company

Grain Elevators

John S. Metcalfe Co. Chicago, Ill.

Groceries

The Hudson's Bay Company

Hardware

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Headlights

The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Hose

Rice Lewis & Son Toronto.

Illustrations

Acton Burrows Co. Toronto.

Interlocking Plants

Montreal Steel Co. Montreal.

Iron

Rice Lewis & Son Toronto.

Iron Signs

Acton Burrows Co. Toronto.

Japans

McCaskill, Dougall & Co. Montreal.

Journal Bearings

Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry Winnipeg.

Lamps & Lanterns

The Hudson's Bay Company
Rice Lewis & Son Toronto.
The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Launches

Polson Iron Works Toronto.

Life Insurance

Travelers' Insurance Co. Montreal.

Lights, Contractors and Wrecking

James Cooper Montreal.
W. H. C. Mussen & Co. Montreal.

Linoleum and Floor Coverings

The Hudson's Bay Company

Locomotives (Compressed Air)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Electric)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Rack)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Steam)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Canadian Locomotive Co. Kingston, Ont.
James Cooper Montreal.
Locomotive and Machine Co. of Montreal
W. H. C. Mussen & Co. Montreal.
The Saxon Engine Works, Chemnitz, Germany.

Machine Tools

The Saxon Engine Works, Chemnitz, Germany

Matches

The Hudson's Bay Company

Milepost Numbers

Acton Burrows Co. Toronto.

Mohair

The Hudson's Bay Company

Nails, Wire

Dominion Wire Manufacturing Co. Montreal.

Numbers

Acton Burrows Co. Toronto.

Nuts, Cold Pressed

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Oakum

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Oils

Galena-Signal Oil Co., Franklin, Pa., & Toronto.
The Queen City Oil Company Toronto.

Office Signs

Acton Burrows Co. Toronto.

Packing

The N. L. Piper Railway Supply Co. Toronto.

Pinch Bars

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Pipe Covering

Mica Boiler Covering Co. Montreal.

Plushes

The Hudson's Bay Company

Porter

E. L. Drewry Winnipeg.

Portland Cement

Rice Lewis & Son Toronto.

Printing

The Hunter, Rose Co. Toronto.
The Mail Job Printing Company Toronto.

Pumps

Rice Lewis & Son Toronto.

Railway Supplies

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Rails (New)

James Cooper Montreal.
Drummond, McCall & Co. Montreal.
J. J. Gartshore Toronto.

Rails (for relaying)

James Cooper Montreal.
J. J. Gartshore Toronto.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Rice Lewis & Son Toronto.
Jas. W. Pyke & Co. Montreal.

Roof Trusses

Dominion Bridge Co. Montreal.

Rope

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Screws, Milled Machine

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Semaphore Arms

Acton Burrows Co. Toronto.

Semaphores

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Shafting

Rice Lewis & Son Toronto.

Shipbuilders' Tools & Supplies

Rice Lewis & Son Toronto.

Ship Lamps

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Ships

Polson Iron Works Toronto.

Shovels

James Cooper Montreal.
The Hudson's Bay Company
Rice Lewis & Son Toronto.

Side Bearings

Simplex Railway Appliance Co. Montreal.

Signal House Numbers

Acton Burrows Co. Toronto.

Signals

The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Signs

Acton Burrows Co. Toronto.

Snow Ploughs

Rhodes, Curry & Co. Amherst, N.S.

Spikes

Rice Lewis & Son Toronto.

Springs

B. J. Coghlin & Co. Montreal.
Montreal Steel Co. Montreal.

(Continued on preceding page.)

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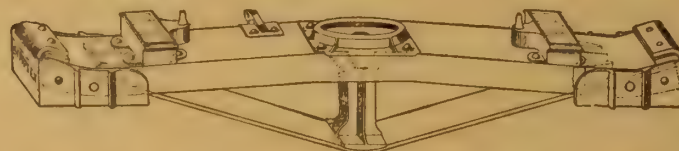
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G. T. R. SEMI-ANNUAL MEETING.

At the semi-annual meeting in London, Eng., Oct. 9, the President, Sir C. Rivers Wilson, moved the adoption of the report and accounts, which were published in our last issue. Following are extracts from his remarks:

The principal feature of the last half-year's accounts is that, although we have received a very large increase of revenue, there has been a large corresponding increase of expenses, which has gone far to neutralise the beneficial results which we might have expected under ordinary conditions. The gross receipts were £2,778,080, an increase of £400,879, or 16.86%. The receipts from passengers and mails and express traffic increased £92,425, or 13.06%, and the freight and live stock receipts increased £306,735, or 19.19%. There has been also a slight increase in miscellaneous receipts. The number of passengers carried increased by 434,639, or 12.33%, accompanied by a slight increase in the average fare received per passenger from 3s. 5d. in 1902, to 3s. 5½d. in 1903. The freight and live stock traffic showed an increase of 1,070,016 tons, or 18.85%, and there was also a small increase in the rate received per ton, from 5s. 7½d. in 1902, to 5s. 7¾d. in 1903. I have on previous occasions referred to the improvement which has been made in the capacity of the locomotives and cars, and it is owing to that improvement more than to anything else—an improvement which is still progressing—that we have been able satisfactorily to deal with the enormous increase which has taken place in the traffic. The working expenses for the half-year were £1,995,032, or 71.81% of the gross receipts, compared with £1,603,612 or 67.45% in the corresponding period, an increase of £391,420, or of 4.36 in percentage to gross receipts. Of the total increase of £391,420 in expenses, £330,601, or 84.46%, has taken place under the head of conducting transportation; the other principal item of expenditure, the maintenance of way and maintenance of equipment, showing a reduction in their proportion to gross receipts. Of this increase in the cost of conducting transportation, £199,129 represents fuel for locomotives, of which £146,350 was caused by increased price or by the inferior quality of coal obtainable, £43,555 by increased train mileage run to accommodate the traffic, £5,885 by increased rates of wages paid for labor in handling coal, and £3,338 caused by additional delays on the road and at terminal points owing to the congestion arising from the large increase in the traffic. During the past half-year we have been enabled to make our fuel contracts for the ensuing year on terms which, though

higher than in previous years, are considerably less than the prices we were compelled to pay from last Nov., when our trouble in this respect commenced, to the end of April. There is another serious increase in the cost of transportation, viz., wages, which amount to £77,017. The continued prosperity of Canada has naturally led to increases of the wages of all classes of workmen, and railway companies, with their increasing revenues are, of course, not exempt from demands of their employees to participate in the improved conditions, and, in addition, there is, in prosper-

ing in the amount of work done, is inconsiderable. The amount expended in the maintenance of way and structures increased £35,548, a decrease of 0.19% in proportion to gross receipts. There has been charged to this account, and credited to the renewal of bridges account, £15,000, which was not included in the corresponding period, and which accounts for a considerable proportion of the increase under this head. Two years ago it was arranged that we should set aside for a period of five years £66,000 a year for the improvement and renewal of bridges, and we have,

owing to the prosperity of the company, been able to somewhat anticipate that, and we have now over and above this special allocation, set aside an additional £45,000, thereby curtailing, pro tanto, the period over which these excessive expenditures will be incurred. Maintenance of equipment increased £11,440, but the proportion to gross receipts decreased 2.23%. The maintenance of locomotives decreased £2,573, and of cars increased £14,013. During the year we have completed in our own shops 20 freight locomotives, as against 17 old engines which have been sold or broken up. We have also been able to make satisfactory progress in renewal and construction of passenger and freight car stock, which had been delayed owing to the difficulty of obtaining materials, and instead of a deficiency in the passenger car stock of 104 cars, as in 1902, there is now only a deficiency of 79, and instead of a deficiency of 683 freight cars of a year ago, we had at June 30 last a surplus of 1,119, all of much greater capacity than those which they replaced. The result of these increases in expenses is that our net traffic receipts show only an increase of £9,459. The expenditure on capital account during the half-year was £123,481, which was reduced by the premium on debenture stock sold to £104,397. The principal item of the expenditure was £65,581, on account of double track, of which £44,159 was in respect of the line between Whitby and Port Hope on the main line between Montreal and Toronto, and £21,422 for the line between Hamilton and Niagara Falls. The work on the last-named section has been completed, and we are having the full benefit of it in the handling of the traffic, and we have been able during the past six months to make more satisfactory progress with the work between Whitby and Port Hope, which is more in the nature of a diversion of the line than of simple double-tracking. The grading of this portion has been practically finished, and it is expected that the whole work will be completed this season, and that before the close of the year we shall have the use of the new tracks. When this has been completed, the



G. J. BURY,
General Superintendent, Lake Superior Division, Canadian Pacific Ry.

ous times, considerable difficulty in obtaining and retaining the men necessary to carry out efficiently the working of the traffic. Under these circumstances we have been compelled to make considerable increases in the pay of different classes of our employees. Deducting these two items of £199,129 for the increased cost of fuel, and £77,017 for increased wages, which are practically beyond the control of the board, from the total increase of £330,601 for conducting transportation, there only remains an increase of £54,455 in the other items, which, looking to the very large increase

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TORONTO, CANADA, DECEMBER, 1903.

Canadian Excursion Agreement Meeting.

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SECRETARY care of Passenger Department, C.P.R.
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Canadian Freight Association.

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ronto.

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PRESIDENT, W. J. Brown; SECRETARY, pro tem, W.
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REGULAR MEETINGS, 1st Monday each month, in club
rooms, Toronto Junction.

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Acton Burrows, F. H. Hopkirk, J. Powell, F. Suther-
land, SECRETARY, W. H. Rosevear, Jr., Montreal;
TREASURER, S. F. Underwood, Montreal.

MEETINGS at Windsor Hotel, Montreal, 1st Tuesday
of each month, 8 p.m., except in June, July and Aug.

Canadian Roadmasters' Association.

PRESIDENT, A. McAuley, Toronto Jct., Ont.; VICE-
PRESIDENT, J. R. Brennan, Ottawa, Ont.; SECRETARY-
TREASURER, J. Drinkwater, Winchester, Ont.
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TREASURER, H. Irwin; SECRETARY, C. H. McLeod;
LIBRARIAN, E. G. M. Cape.
MEETINGS AT 877 Dorchester St., Montreal, every
alternate Thursday, 8 p.m.

Canadian Ticket Agents' Association.

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WORLD, Toronto.

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; SEC.-TREASURER, F. King, King-
ston, Ont.

Engineers' Club of Toronto.

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Great Lakes and St. Lawrence River Rate Committee.

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NEXT MEETING, Toronto, Ont., in 1904.

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Dougall; Kingston, Ont., J. Gillie; Montreal, O. L.
Marchand; Victoria, B.C., B. S. Oddy; Vancouver,
B.C., T. M. Heard; Lewis, E. Belanger; Sorel, A. L.
de Martigny; Owen Sound, J. M. Wilson.

NEXT ANNUAL MEETING of the Grand Council in
Kingston, Ont., Jan. 4, 1904.

Niagara Frontier Summer Rate Committee.

CHAIRMAN, D. J. Flanders, Boston, Mass.
SECRETARY, G. C. Wells, Montreal.

The Shipping Federation of Canada.

PRESIDENT, H. A. Allan; CHAIRMAN OF EXECUTIVE
COMMITTEE, W. I. Gear; MANAGER, T. Robb; SECRE-
TARY, T. B. Odell. Office, 526 Board of Trade, Montreal.

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Toronto.

G. T. R. Semi-Annual Meeting.

(Continued from page 401.)

company will have a continuous double track
from Montreal to Niagara Falls, 415 miles.
When the double-tracking work now in hand
is completed, we shall have in operation over
the various portions of our system about 888
miles of double track. During the half-year
we expended £52,017 in the acquisition of land
for improving our terminal and siding facili-
ties at various places, of which the principal
item is £40,220 for land at Montreal West.
There is £5,683 charged on account of the
Brantford deviation.

A general review of the situation affords
conclusive evidence of the wisdom of the
course we have steadily been pursuing of
bringing up the condition of the property to
the highest standard of efficiency. It has en-
abled us not only to hold our own, but large-
ly and profitably to improve our business, and
it offers the best security for the consolida-

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tion and maintenance of the strong posi-
tion which the company has acquired, and
here let me say to any of you who feel disap-
pointed because a more profuse distribution
of dividends has not attended the improved
fortunes of the company (although I may ob-
serve in passing that, since Jan. 1, 1898, £2,-
540,080 have been so distributed), that a time
will certainly arrive when you will not regret
the liberal expenditure of the last few years. I
am satisfied the G. T. R. will derive lasting ad-
vantages from the policy pursued in these pros-
perous times, and of which, indeed, we are al-
ready enjoying some of the fruits. Already there
are cautious observers who bid us prepare for
the reaction which, experience teaches, follows
almost invariably on a period of great prosper-
ity. For the moment, however, there seems
to be no appreciable slackening of the flow of
business. For the first three months of the
current half-year the revenue of our system,
including the G. T. Western and Detroit,
Grand Haven and Milwaukee Railway, ex-
ceeded by £302,925 that for the correspond-
ing quarter of 1902. The impression which
I received during my recent visit to Canada
and the U.S. was that the industries of both
countries are progressing, and that under or-
dinary conditions, apart from harvest failures
and labor or political troubles, there seems no
reason why their continued development
should not be maintained.

I have but a few words to say about the
G. T. Western, but it is satisfactory. There
has been a gross increase of income of £89,-

366; but for the same reasons as applied to the G.T.R. and other railways, there has been a considerable increase of expenses, amounting to £77,211. The balance of net revenue available for interest on the bonds is increased by £12,155, and after paying the interest charges there is a surplus for the half-year of £2,995, which, added to the surplus for the half-year ended Dec. 31 last, and the balance carried forward on June 30, 1902, makes 1% available on the income bonds of the company for the year. As to the Detroit, Grand Haven and Milwaukee, there is nothing to be said; the circumstances are almost entirely on all fours with those of last year. A system of ferry boats for carrying the cars across Lake Michigan has been established between Grand Haven and Milwaukee. This will have the great advantage of enabling traffic to go to and fro between Grand Haven and Milwaukee without breaking bulk, and we expect that there will be a considerable accretion of business on that account.

During the summer I visited Canada, being accompanied by Sir Wm. Young and Mr. Smithers. We brought back a most favorable impression of all that we saw. The whole of our system is alive with activity, progress and improvement. At Montreal it was really a great satisfaction to transact business at our new offices. We were extremely pleased with the new purchase of land in the proximity of Montreal for the extension of our yards. We have acquired a site of 187 acres only a few miles from Point St. Charles, extremely well situated on both sides of the line; it has all been acquired and paid for, and Mr. Hays proposes almost immediately to set to work to utilize it. We visited Toronto, and there also there has been a considerable extension of our yards. We have acquired some extremely valuable plots of land in close juxtaposition to our present terminals, in the very centre of the city, and this accommodation also will very much improve our facilities for moving traffic. We proceeded to Detroit to inspect the new acquisition of the G.T. Western—the Detroit, Toledo and Shore line, which has been acquired half by the G.T. Western, and half by what is called the Clover Leaf line. We have since learned that on Sept. 1 the new line was inaugurated, and Mr. Hays writes very encouragingly as to the possibilities of traffic which will result from the acquisition of this road. Passing on via Chicago, we visited the G.T. Western, and were exceedingly pleased to see how much the work had progressed. In the course of this autumn the whole of the double tracking of the 335 miles between Chicago and Sarnia will be accomplished, with the exception of a small portion in the neighborhood of the town of Valparaiso.

We made up our minds it would be desirable, in view of future events, to visit Winnipeg. We went there in order to satisfy ourselves by conversation with leading personages at Winnipeg, and also by making our observations with regard to the place itself and its approaches and the intervening country. We wished to acquaint ourselves with all these things with a view to an ultimate intimate connection which very likely the G.T.R. may have when the new line, which is contemplated to be constructed very shortly into that region, is finished. All that we saw was of a distinctly encouraging nature. It had been my expectation that it might have devolved upon me to-day to have given you some details of the progress of the proposed measure for the construction of this new road which I have just referred to. But it would be inopportune, it would be premature for me to speak, excepting in very general terms to-day, because the legislation connected with this scheme is still incomplete. The idea which the Grand Trunk had when it undertook the promotion of what is called "The G.T. Pacific Ry." was to acquire a connecting interest with some separate corporation which

would construct the road through the prairie districts. The primary idea was that starting from North Bay such a line might be constructed running to Winnipeg, or further west, and it was with that intention that we promoted a bill for the incorporation of this company. The bill was introduced into the Dominion Parliament, and it was soon found that it would raise a great question in the public mind, and on the part of the government, as to whether advantage should not be taken of this scheme to obtain still larger advantages in the interests of Canada. At the wish of the Dominion government, and of popular opinion, there has been grafted upon the original idea a much larger scheme contemplating the construction of a road straight across from New Brunswick in the east to the Pacific Coast in the west. The charter, as conferred, gives very large powers for the construction of a road; but it became necessary, in order to give effect to the views of the government, that also another bill should be introduced under the auspices of and by the government itself, for carrying out their portion of the undertaking. And their portion of the undertaking would be this, that the government would themselves be the owners of the whole of the line from New Brunswick to Winnipeg, and that that line should be leased to and worked by the G.T. Pacific, and that the G.T. Pacific should be restricted in its ownership to the road west of Winnipeg. It would be inopportune for me to allude to any future connection which the G.T.R. may have with this scheme, only bearing in mind, of course, that nothing will be done without the assent of the shareholders.

Sir Rivers concluded by moving the adoption of the report, etc., and that the following dividends be paid: 4% guaranteed stock, 2%; 1st preference stock, 2½%; 2nd preference stock, 2½%, which was carried.

British Columbia Electric Ry. Co.

The report for the year ended June 30, presented at the annual meeting in London, Eng., Oct. 30, showed that the business of the Co. has largely increased in all departments, and the profits made during the year show a corresponding increase. The gross receipts increased over the preceding year \$95,717, and the net earnings, after charging renewals, increased \$39,172. The following charges have been made against the revenue account of the year:

Provision for renewals maintenance.....	£10,446	3	8
Bonus to employees.....	1,494	16	11
Written off preliminary and issuing expenses.....	1,000	0	0
Added to capital amortization fund.....	1,594	18	6
Net profit for year, after making above deductions.....	£37,864	16	0
Add balance brought forward from last year.....	533	11	7
	£38,398	7	7
Deduct debenture interest to June 30, 1903.....	£11,119	10	2
Dividend on preferred ordinary stock for 9 months to Mar. 31, 1903.....	7,500	0	0
Interim dividend on deferred ordinary stock for 6 months to Dec. 31, 1902.....	4,000	0	0
	22,619	10	2
Leaving available for distribution and reserves.....	£15,778	17	5
From this the directors have decided—			
To provide for dividend on cumulative perpetual preference shares to June 30.....	£1,241	16	11
To provide for dividend on preferred ordinary stock for 3 months to June 30.....	2,500	0	0
To recommend payment of dividend on deferred ordinary stock at rate of 3% making 5% for the year, which, including income tax, will absorb.....	6,938	1	0
To transfer to contingency fund.....	1,000	0	0
To transfer to reserve fund.....	3,000	0	0
	14,679	17	11
To carry forward to next account.....	£1,098	19	6

Deductions have been made from the earnings in B.C. to provide for renewals maintenance, instead of, as in previous accounts, making provision for this in a total amount at the end of the year. The number of lights in use at June 30, 1903, was 93,099, an increase of 18,739 over the number in use at June 30, 1902.

The Manager in B.C. reports that the rolling stock has been substantially added to and maintained in excellent condition; that there has been a marked increase in the power business during the year, and that the outlook generally is bright. During the year 6,000 5% cumulative perpetual preference shares of £10 each have been issued by the company, and a further 1,500 were issued in Aug. last, making a total of £75,000. The construction of the Vancouver power installation by the Vancouver Power Co., (Ltd.), which commenced in July, 1902, has proceeded satisfactorily. Considerable progress has been made with tunnelling; the site for the dam has been prepared; the foundations of the power house have been laid; the building of the power house commenced; and the installation of the pole line for transmitting current to Vancouver and New Westminster is well in hand. The General Manager reports that he expects the Power Co. will be in a position to deliver 2,000 electrical h.p. by the beginning of Dec. next. On the advice of the engineers, the scheme, as originally designed, has been enlarged so as to provide for the supply of an initial 9,000 h.p., with power of expansion to 30,000 h.p., instead of an initial 6,000 h.p., with expansion to 15,000 h.p.; the size of the tunnel has been increased by 25%, and machinery and transmission plant of greater electrical capacity are being provided. This enlargement of the original scheme will involve an additional expenditure of about £60,000, but the directors are satisfied that the importance of being fully prepared to meet the rapid increase in the demands for electrical power in Vancouver and New Westminster justifies the increased expenditure. Funds for carrying on the works of the Vancouver Power Co. have been raised by the sale of £175,000 4½% Vancouver power debentures, part of a total authorized issue of £220,000, and the board proposes at an early date to offer the remaining £45,000 to the stockholders and debenture holders to provide further funds as required. The directors have for some time past been carrying on negotiations for the purchase of the undertaking of the Vancouver Gas Co., which, if brought to a successful issue, should materially add to the value of the Co.'s lighting business. The directors record their high appreciation of the very valuable services of the General Manager, J. Buntzen, and of the staff in B.C. After the first year's trial of the profit-sharing scheme referred to in last year's report, the directors record with satisfaction that most cordial relations continue to exist between the employees and the manager, who attributes the satisfactory results attained during the past year largely to the hearty co-operation and loyal assistance of all the employees. The directors have had brought to their notice instances of valuable assistance rendered quite voluntarily by employees, who have shown an intelligent appreciation of their own pecuniary interest in the Co.'s success. The share of profits distributed to the employees for the year amounts to \$7,250. During the year E. L. Evan-Thomas has been elected by the directors to fill a vacancy on the Board. R. K. Sperling and E. L. Evan-Thomas, the directors retiring by rotation, being eligible, offer themselves for re-election.

Following are comparisons: Railway earnings, Vancouver, \$158,083 against \$129,130; New Westminster, \$119,318 against \$102,199; Victoria, \$113,842 against \$109,056. Electric light, Vancouver, \$189,237; Victoria, \$92,402. Total earnings, \$672,882 against \$577,165; total expenses, \$448,535 against \$391,990; net

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Successor to Galena Oil Company and Signal Oil Company, sole Manufacturers of the celebrated Galena Coach, Engine and Car Oils, and Sibley's Perfection Valve and Signal Oils.

CHARLES MILLER,
PRESIDENT.

earnings, \$224,347 against \$185,175. Percentage of expenses to gross earnings after charging for renewals, 66.65% against 67.92%.

G. P. Norton presided at the annual meeting in the absence of R. M. Horne-Payne, chairman of the company, and moved the adoption of the report and the declaration of the dividends as recommended, which was approved. R. K. Sperling and E. L. Evan-Thomas, the retiring directors, were re-elected, and a resolution was passed constituting the directors of the B.C. Electric Ry. Co. directors of the Vancouver Power Co.

Quebec Ry. Light and Power Co.

In our last issue we published a report and statement of accounts received from the Company's offices in response to a request for a copy of the report presented at the annual meeting held Oct. 9. By some oversight a copy of the report for the year ended June 30, 1902, was forwarded instead of that for the year ended June 30, 1903, and this was not noticed in our office. Following are extracts from the report for the latter year:

The net profit for the year was \$18,204.85, which, added to the balance of profit and loss account carried forward from 1902, increases the amount at the credit of that account to \$117,357.40. The business of the year had to suffer largely from the loss of the revenue derived from the city lighting contract which terminated in Oct., 1902. Kent House and the passenger elevator at Montmorency have together yielded a fair profit, as much as was anticipated from the first year's operations. The result of the operations of the Montmorency division is on the whole satisfactory, and shows increases in the number of passengers, and of freight carried; it has yielded good net profits and fair increases over the profits of previous years. The Citadel division has made good progress; it has yielded satisfactory results and also shows an increase in net profits. Reference was made to the cancellation of 5,000 shares of common stock in the treasury, and the issue, in place thereof, of 5,000 shares of 7% preference stock. This stock had been offered to the shareholders and 2,186 shares had been taken up by the end of the financial year. The dividends are payable in Nov. and May. E. E. Webb resigned from the Board of Management during the year, and F. W. Ross was appointed in his place.

The report of E. A. Evans, General Manager, in connection with the railway portion of the Company's undertaking, follows:

CITADEL DIVISION.—During the past year 4,424,127 passengers have been carried, an increase of 231,328 over the previous year. The number of transfers issued was 1,472,645, an increase of 12,360. The car mileage has been 1,179,031, an increase of 70,344 miles; the sweeper mileage, 10,276, an increase of 4,476 miles. Notwithstanding the slight increase in wages made to long service employees, the operating expenses have been reduced from 11.35c. a car mile to 10.85c. All cars have been kept in a thorough state of repair, painted and revarnished when necessary, and the electrical equipment has also been maintained in a high state of efficiency.

MONTMORENCY DIVISION.—The passengers carried on this division are as follows: On electric trains, 666,460; on steam trains, 131,481; a total of 797,941 passengers, an increase of 148,854 over the previous year. The steam passenger trains made 129,276 miles, being 20,884 less than the previous year; the electric cars made 195,234 miles, an increase of 44,577, making a total increased mileage of 23,693 over the previous year. There were 103 organized pilgrimages to Ste. Anne de Beaupré, as against 99 last year, and 61 special excursions, as against 33. The new sidings placed at Petit Pré, Rivière des Chiens

and Beaupré have had the effect of increasing the freight by 622 carloads, 1,912 carloads having been handled this year, as against 1,290 the previous year. The rapidly increasing freight business necessitates my recommending the purchasing of six additional box cars and 10 more flat cars, at a cost of about \$9,200. Three new flag stations were constructed during the year. An express freight service was established during the year. The Kent House elevator continues to give satisfaction and has shown an earning of 13½% upon the investment. The rolling stock, roadbed, buildings and other property of the Company have all been maintained in the most efficient working order.

ASSETS.

Road and equipment, real estate, buildings, etc., including Kent house.....	\$5,351,851 03
Cash on hand and in bank.....	10,525 95
Power division, operating, including accounts due, stores for operating equipment.....	36,415 05
Kent house—operating account.....	8,292 23
Montmorency division—operating account, stores, etc.....	23,153 07
Citadel division—operating account, represented by stores on hand.....	12,123 35
Accounts receivable.....	9,556 07
Bills receivable.....	2,082,30
	<hr/> \$5,453,999 05 <hr/>

LIABILITIES.

Capital stock.....	\$2,500,000 00
Bonds.....	2,500,000 00
Preferred capital stock.....	\$500,000 00
Less in treasury \$281,400 00	
Balance of instalments on stock subscribed for.....	5,980 00
	<hr/> 287,380 00 <hr/>
Bills payable.....	212,620 00
Accrued interest.....	53,116 67
Accounts payable.....	11,868 17
Profit and loss account.....	59,036 81
	<hr/> 117,357 40 <hr/>
	<hr/> \$5,453,999 05 <hr/>

PROFIT AND LOSS ACCOUNT.

Balance carried from June 30, 1902.....	\$99,152 55
Net earnings for year 1902-1903.....	\$158,510 79
Less—Interest on bonds, etc., paid and accrued ..	140,305 94
	<hr/> 18,204 85 <hr/>
Balance.....	<hr/> \$117,357 40 <hr/>

A table showing the earnings, expenses, etc., of the Montmorency division from Aug. 10, 1889, to June 30, 1903, has been prepared. It shows that in the first year 98,863 passengers were carried, and that there was a loss on the year's operation of \$2,569.59. Until 1898 the division was operated by steam, and during the year ended June 30, 1898, 221,940 passengers were carried, the net earnings being \$16,347.89. The introduction of the electric cars, in addition to the steam service, brought about a large increase, the figures for each year since being:

	Earnings.	Expenses.	Net	Passengers carried.
1898-99.....	\$ 58,882 32	\$32,950 74	\$25,931 58	239,593
1899-00.....	65,615 23	37,275 58	28,339 65	261,178
1900-01.....	92,049 43	56,089 64	35,959 79	537,933
1901-02.....	102,934 72	65,183 10	37,751 62	649,087
1902-03.....	121,951 72	79,269 67	42,682 05	797,941

The following directors and officers have been elected for the current year: President, A. Thomson; Vice-President, F. Ross; other directors: Hon. S. N. Parent, G. H. Thomson, E. W. Methot, F. W. Ross, W. Shaw, W. Hanson, Hon. J. Sharples. The latter was elected in place of W. Price, resigned.

In our Nov. issue in the report of the address of President McNamara, at the convention of the Canadian Ticket Agents' Association at Sydney, N.S., he was made to say: "The companies we represent carried in 1887 2,000,000 passengers," etc. It should have read "10,698,638 passengers."

Montreal Street Railway Co.'s Report.

The report for the year ended Sept. 30, presented at the annual meeting Nov. 4, shows net earnings of \$905,939.01, compared with \$911,032.27 last year. After providing for the percentage on earnings accrued to the city, and interest on bonds and loans, the Directors declared four quarterly dividends, amounting to \$600,000, and in view of the Co. having assumed its own fire insurance risk, placed an additional \$25,000 to the credit of the fire insurance fund, which now amounts to \$239,377.31, and \$50,000 to the credit of the contingent account, leaving a surplus of \$9,907.54, which has been transferred to the general surplus account. \$54,130.18 expended during the year on special renewals, has been charged against the contingent account. The roadbed, rolling stock, buildings and other property have been efficiently maintained. The Directors call attention to the fact that the Co.'s earnings continue to increase in satisfactory ratio. The operating expenses per cent. of gross earnings show an increase, due to the heavy increased rate of wages paid in all departments, the increased amount spent on the maintenance of the Co.'s property and the increase paid to the city per cent. on gross earnings. While the gross earnings from the Montreal Park and Island Ry. Co.'s system have shown a satisfactory increase during the year, the working expenses have also increased from causes that have already been mentioned, and in consequence the Montreal Street Ry. Co. has not received any interest on the stock and bonds of the M.P. & I. Ry. Co. owned by it. The Directors issued during the year \$1,000,000 of new stock, to provide for extensions to lines and additions to rolling stock and equipment. This stock was offered to and subscribed for at par by the shareholders. Several new extensions to the system have been completed and put in operation during the year, and the rolling stock equipments and feeder system have been increased to keep up to the requirements of the traffic. Strikes among the motormen and conductors occurred in Feb. and May respectively, causing an interruption in business for a short period. The Directors, in order to improve the relations between the company and its employees, have assisted in the establishment of a mutual benefit association, to provide life insurance, relief in cases of sickness and accident, and pension for long and faithful service, to the funds of which the company will contribute liberally. Jas. Ross, Vice-President, resigned during the year, and the board elected F. L. Wanklyn in his place. During the year the Co. has paid the city of Montreal: tax on earnings and other taxes, \$121,298.80; on account of snow clearing, \$47,168.17, a total of \$168,466.97.

Following are comparisons: Gross receipts, \$2,222,787.65, against \$2,046,208.59; increase, 8.63%. Operating expenses, \$1,316,848.64, against \$1,135,176.32; increase 16%. Operating expenses per cent. of car earnings, 60.20%, against 56.39%. Net earnings, \$905,939.01, against \$911,032.27. Net income per cent. of capital 11.41%, against 11.68%. Passengers carried, 54,592,014, against 49,947,467; increase, 9.30%. Transfers, 16,774,595, against 15,077,511.

ASSETS—1903.

Cost of road and equipment:	
Construction, &c.....	\$ 3,650,222.12
Equipment, &c.....	3,287,160.53
Real estate and buildings.....	1,627,009.37
M.P. & I. Ry. Co.'s stock and bonds.....	1,160,105.40
	<hr/> \$ 9,724,497.42 <hr/>
Stores.....	159,530.75
Accounts receivable.....	113,595.55
M.P. & I. Ry. Co.....	169,166.07
Cash in bank and in hand.....	32,931.23
	<hr/> \$ 475,223.60 <hr/>
Fire insurance fund investments.....	206,000.00
	<hr/> \$10,405,721.02 <hr/>

BALANCE SHEET—1903.

Capital stock	\$ 6,000,000.00
Bonds:	
5% payable March, 1908	292,000.00
4½% " August, 1922	681,333.33
1% " Nov., 1922	1,500,000.00
Mortgages	6,044.51
	\$ 8,479,367.84
Bank of Montreal loan	407,456.16
Accounts and wages payable	109,019.63
Accrued interest on bonds	33,350.00
Accrued tax on earnings	114,034.85
Employees securities	10,301.60
Unclaimed dividends	1,956.57
Unredeemed tickets	22,966.01
Suspense account	139,511.56
Dividend payable Nov. 1st, 1903	150,000.00
	\$ 988,306.38
Fire insurance fund	239,377.31
Contingent account	179,636.04
Surplus	518,743.45
	\$ 937,756.80
	\$10,405,721.02

PROFIT AND LOSS ACCOUNT—1903.

City percentage on earnings	\$ 107,182.87
Interest on bonds and loans	113,848.60
Dividends—(payable quarterly)	600,000.00
Transferred to fire insurance fund	25,000.00
" contingent account	50,000.00
" surplus account	9,907.54
	\$ 905,939.01

G.T.R. Subsidiary Companies.

The annual meeting of the G.T.R. subsidiary companies was held at Detroit, Mich., recently. The officers and directors for the current year are as follows:

GRAND TRUNK WESTERN RY.—President and General Manager, C. M. Hays, Montreal; other directors: F. H. McGuigan, F. W. Morse (advisory), Montreal; Hon. E. W. Wright, Alma, Mich.; E. W. Meddaugh, W. J. Spicer, A. Dixon, Detroit, Mich.; L. R. Skinner, Valparaiso, Ind.; Secretary-Treasurer, J. H. Muir, Detroit, Mich.

DETROIT, GRAND HAVEN AND MILWAUKEE RY.—President and General Manager, C. M. Hays; other directors: F. W. Morse, F. H. McGuigan, J. Hobson, J. W. Loud, Montreal; E. W. Meddaugh, W. J. Spicer, J. Pridgeon, jr., A. P. Sherritt, Detroit, Mich.; Secretary-Treasurer, J. H. Muir.

TOLEDO, SAGINAW AND MUSKOGON RY.—President and General Manager, C. M. Hays; other directors: F. W. Morse, F. H. McGuigan, C. Percy, Montreal; E. W. Meddaugh, C. J. Church, C. W. Middleton, Greenville, Mich.; Secretary-Treasurer, J. H. Muir.

GRAND TRUNK JUNCTION RY.—President, C. M. Hays; other directors: F. W. Morse, E. W. Meddaugh, W. J. Spicer, F. A. Howe; Secretary, J. H. Muir.

CHICAGO, DETROIT AND CANADA GRAND TRUNK RY.—President and General Manager, C. M. Hays; Vice-President, J. Bell, K.C., Belleville, Ont.; other directors: F. W. Morse, E. W. Meddaugh, W. J. Spicer; Secretary, J. H. Muir; Treasurer, F. Scott.

MICHIGAN AIR LINE.—President and General Manager, C. M. Hays; other directors: J. Bell, K.C.; E. W. Meddaugh, W. J. Spicer; Secretary, J. H. Muir; Treasurer, F. Scott.

ST. CLAIR TUNNEL CO.—President, C. M. Hays; Vice-President, J. Bell, K.C.; other directors: F. W. Morse, F. H. McGuigan, J. Hobson, E. W. Meddaugh, W. J. Spicer; Secretary, J. H. Muir; Treasurer, F. Scott.

INTERNATIONAL BRIDGE CO.—President, C. M. Hays; Vice-President, J. Bell, K.C.; other directors: F. W. Morse, F. H. McGuigan, J. Hobson, H. W. Sprague, E. W. Meddaugh; Secretary, J. H. Muir; Treasurer, F. Scott.

The employees of the Michigan Central Ry. Co. at St. Thomas, Ont., have been formed into a company of the 25th regiment of the Canadian Militia.

C.P.R. Earnings, Expenses, Etc.

Gross earnings, working expenses, net profits, increases or decreases over 1902-03, from July 1, 1903:—

Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July \$3,997,343.75	\$2,678,816.63	\$1,318,527.12	\$142,815.86+
Aug. 4,076,153.74	2,642,051.24	1,434,102.50	71,204.05+
Sept. 3,937,001.72	2,734,735.91	1,202,265.81	208,488.69-
\$12,010,499.21	\$8,055,603.78	\$3,954,895.43	\$5,528.22+

Approximate earnings for Oct., \$4,475,000, against \$4,116,000 for Oct., 1902.

The mileage was increased to 8,044 miles, Oct. 1, and the earnings of the Calgary and Edmonton Ry. have been included in the C.P.R. earnings since that date.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Sept., \$239,411.99; net earnings, \$78,442.10, against \$241,617.43 gross and \$97,868.97 net for Sept., 1902. Net earnings for three months ended Sept. 30, \$291,040.10 against \$327,815.76 for same period, 1902. Approximate earnings for Oct., \$247,730, against \$259,206 for Oct., 1902.

MINERAL RANGE RY.—Approximate earnings for Oct., \$55,761, against \$48,878 for Oct., 1902.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Sept., \$736,602.79; net earnings, \$430,835.87, against \$723,294.17 gross and \$401,559.66 net for Sept., 1902. Net earnings for three months ended Sept. 30, \$1,000,401.13, against \$941,345.61, for same period, 1902. Approximate earnings for Oct., \$792,934, against \$774,166 for Oct., 1902.

The Fort William, Ont., town council has decided to run cars on the electric line in the town morning and evening on Sunday, subject to the approval of the voters.

When a Man

Wastes his time and money using slow, clumsy and dangerous Jacks some one should tell him he needs

Norton Ball-Bearing Jacks.

They are Ratchet Screw Jacks having all the advantages of Hydraulics, are lighter, lower in price, absolutely safe and guaranteed in every respect. Fifty styles, 8 to 70 tons capacity.

Illustrated Catalogue upon request

MANUFACTURED BY

A. O. NORTON, Coaticook, Que.

Carried in stock by Canadian Agents, W. H. C. MUSSEN & CO., Montreal, Que.

Change Bloche

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1903	1902	1903	1902
July..	267,647.32	155,344.98	\$1,020,404.70	\$672,876.50
Aug..	263,339.45	130,723.83	1,271,529.81	473,064.85
Sept..	60,441.12	145,535.83	268,757.99	542,811.11
Oct....	15,950.07	270,616.23	236,611.59	952,645.35
	546,936.84	702,220.87	\$2,528,546.17	\$2,641,397.81

Grand Trunk Ry. Earnings, Expenses, &c

The following statement of earnings, supplied from the Montreal office, includes the G. T. of Canada, the G. T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1903.	1902.	Increase.	Decrease.
July.....	\$3,192,608	\$2,589,422	\$603,186	....
Aug.....	3,201,511	2,719,303	482,208	....
Sept.....	3,274,245	2,885,405	388,840	....
Oct.....	3,222,750	2,956,358	266,392	....
	\$12,891,114	\$11,150,488	\$1,740,626	....

The following figures have been issued from the London, Eng., office:

GRAND TRUNK RY. CO.**Revenue statement for Sept.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts....	£341,300	£286,600	£54,700	....
Working expenses	348,200	301,000	47,200	....
Net profit..	£195,100	£185,600	£7,500	....

Aggregate from July 1 to Sept. 30:

	1903.	1902.	Increase.	Decrease.
Gross receipts..	£1,631,800	£1,384,200	£247,600	....
Working expenses.....	1,099,100	892,800	206,300	....
Net profit.	£532,700	£491,400	£41,300	....

GRAND TRUNK WESTERN RY. CO.**Revenue statement for Sept.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts....	£103,000	£81,500	£21,500	....
Working expenses	89,300	72,000	17,300	....
Net profit..	£13,700	£9,500	£4,200	....

Aggregate from July 1 to Sept. 30:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	£280,900	£233,200	£47,700	....
Working expenses	255,200	211,900	43,300	....
Net profit..	£25,700	£21,300	£4,400	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.**Revenue statement for Sept.:**

	1903.	1902.	Increase.	Decrease.
Gross receipts....	£28,400	£24,600	£3,800	....
Working expenses	19,500	15,900	3,600	....
Net profit.....	£8,900	£8,700	£200	....

Aggregate from July 1 to Sept. 30:

	1903.	1902.	Increase.	Decrease.
Gross receipts....	£73,500	£65,200	£8,300	....
Working expenses	50,600	43,800	6,800	....
Net profit....	£22,900	£21,400	£1,500	....

TRAFFIC RECEIPTS OF THE SYSTEM.**Aggregate from July 1 to Oct. 31:**

	1903.	1902.	Increase.	Decrease.
Grand Trunk..	£2,148,658	£1,876,770	£271,888	....
G. T. Western	400,587	325,335	75,252	....
D. G. H. & M.	99,614	89,090	10,524	....
Total.....	£2,648,859	£2,291,195	£357,664	....

The mileage of the G.T.R. was decreased from 3,561 to 3,558.

C.P.R. Shareholders.

At the closing of the books of the C.P.R. Co. Sept. 1, there were 10,294 holders of preferred stock and 7,734 holders of common stock, making the total number of shareholders 18,028. When the books closed Feb. 28 there were 9,999 holders of preferred and 6,921 holders of common, a total of 16,920. In the six months the number of shareholders increased 1,108, or nearly 200 a month. Of the increase 295 were preferred shareholders and 813 common stockholders.

The C.P.R. has actually outstanding \$31,171,000 4% cumulative preferred and \$84,500,000 common stock. This was jointly held by

**A STATION AGENT'S GOOD CATCH.**

Members of the Canadian Ticket Agents Association's party, which recently visited New Brunswick, will remember with pleasure O. A. Barbarie, Station Agent at Campbellton, who travelled on the special train from there to Newcastle, and who is one of the most successful salmon fishermen in that Province. The illustration above shows a catch of six salmon taken at Flatlands on June 14, 1900, being carried into camp. The largest fish weighed 27 lbs., and the next 25 lbs., the average weight being about 22½ lbs. Two of the largest were caught by Mr. Barbarie's son, aged 14, in water belonging to W. Delaney, and the other four were taken by Mr. Barbarie in water belonging to W. Thomson—an excellent pool in the month of June. In four or five days they secured 16 salmon averaging 24 lbs. A few years ago, at the same place, Mr. Barbarie caught four salmon which aggregated 119 lbs., one weighing 35 lbs. On July 16 of this year he caught 16 salmon, averaging about 10 lbs., in the Upsalquitch river. Trout weighing from 3 to 6 lbs. are often caught near Campbellton.

the preferred and common shareholders at an average of 64 shares each, showing the wide distribution of the stock issues. The 10,294 preferred shareholders have 30 shares each, and the holders of the common stock 109 shares each.

The C.P.R. compares with U.S. roads in the total number of stockholders thus:

Canadian Pacific.....	18,028
Pennsylvania.....	34,500
Union Pacific.....	14,100
Illinois Central.....	8,647
Baltimore & Ohio.....	6,577
Erie Railroad.....	5,239
St. Paul.....	5,300
Missouri Pacific.....	1,600
Rock Island preferred.....	1,700

—Montreal Herald.

I.C.R. Maintenance of Way Notes.

The Intercolonial Ry., which is owned by the Dominion, comprises 1,333 miles of single track line, the principal termini being Montreal, St. John, N.B., Halifax and Sydney, N.S. It is ballasted with gravel of good quality. The standard rail is of 85-lb. section, which is being laid at the rate of 25,000 tons each year as lighter rail is being renewed. Thirty-seven miles are laid with the heaviest rails of which we have knowledge for steam railway practice. These rails weigh 110 lbs. a yard, and were rolled in 1889, for the Chignecto Ship Ry. They were recently taken up and were laid by the I.C.R. during last summer. The rails are of Cammel's make, of "toughened steel." The section is 6½ ins. high, 6¼ ins. wide on the base and the head is 2¾ ins. wide. Four-bolt splices are used. The horizontal leg of the outer angle bar is punched for two spikes—one for each joint tie—and the inner bar is punched twice for spiking to each tie.

The track sections are 6 miles long, and are worked by five men in summer and three in winter, or an average of about four the year around. The track surface and alignment are in excellent condition. The limit of curvature on main line is 4 degs., with but one or two exceptions. The right of way is kept in clean condition. On rocky ground and wherever the ground is heaved badly by the frost the fence posts are set on sills. The sill for each post extends at right angles to the track, with a brace on the track side.

Notwithstanding that this road is located through a rolling country there are some notably long tangents. There is one 40 miles long, another 35 miles long, and several others 15 to 20 miles long. Along the tangents there are no bogs, marsh land or prairies.

Owing to the deep snows it is necessary to maintain and operate a modern equipment of snow plows and snow flanges during the winter, and the cuts are well protected by snow fences, while some of the worst cuts are covered with sheds. The standard snow fence is 8 ft. high, built of cedar. There are posts with two girts, the boards being put on vertically 2 or 3 inches apart. On its northern division the management is pursuing the plan of growing hedge snow fence wherever the trees will grow, and many examples of thriving trees on the line of the snow fences may be seen by the passenger. Fir and spruce are set out on the track side of the fence, and by the time the fence decays the growth of trees will take the place of the lumber fence. Trees planted 10 to 12 years ago are now 8 to 12 ft. high, bushy near the ground and growing close enough together to serve the purpose of a snow fence excellently. In order to maintain a bushy growth the trees are trimmed to a height of 12 ft., and are not permitted to permanently exceed this height.

Ref. to G. T. A. Intercolonial Ry. See 14, 1903.

The old bridges of the road are being renewed with stronger structures, to carry the increased train loads. Riveted truss construction is being followed for the longer spans. The bridges at the crossing of the Northwest Miramichi and Southwest Miramichi rivers, six spans of 200 ft. each, at each point, have recently been renewed with spans of this character. They were built by the Dominion Bridge Co., and the details throughout are designed on the same substantial plan as the main members. A peculiarity of the design of the floor system of these bridges is the use of four heavy plate-girder stringers under each track, close to the rails. Each rail is supported by two plate-girder stringers spaced 2 ft. apart, one on either side of the rail. The stringers are 4 ft. deep and head into the floor beams, the latter being carried by being riveted at each end into the vertical posts of the trusses. The panel length is 30 ft.

The deck ties are 8x10 ins., laid 4 ins. apart in the clear, and they are long enough to reach within 2 ins. of the bottom chords of the trusses. Outside each rail 4x8x12 ins. chock blocks are placed between the ties, nailed on with steel spikes as each tie is laid. The bridge trusses stand 16 ft. 9 ins. apart in the clear, and the clear headroom over the track is 23 ft.

On either side of each station, at a distance of 1,000 to 1,800 ft., there is a high semaphore signal operated in connection with the order board at the station. While a train is waiting at the station these distant signals are set to danger, and other trains approaching the station are held at the distant signal. No train is allowed to pass into a station or out from it until the distant signal ahead of it is set to clear. In other words, a train is not allowed to pass a station until it first gets a clear signal to approach it, and it may not pass the distant signal beyond the station un-

less the semaphore is cleared. The operation of these signals is by a single line of wire cable five-sixteenths inch in diameter, counterweighted for the back pull. It is carried on posts about 7 ft. high, painted white, with a pulley on one side, near the top of each post.

An interesting feature of the station building construction of this road is a so-called "frost proof" floor. The sills (outer and cross sills) of the building are old plate-girder bridge beams 15 ins. deep. On the flanges of these there is a floor, and on this there is a bed of concrete 6 ins. deep. This bed of concrete supports the wooden joists of the service floor, which consists of 3-in. plank overlaid with straw paper and matched hardwood flooring.—Railway and Engineering Review.

December Birthdays.

Many happy returns of the day to—

A. H. Anderson, Cashier, Paymaster, and Purchasing Agent, Quebec Central Ry., at Sherbrooke, Que., born at Cookshire, Que., Dec. 19, 1859.

J. H. Barber, Division Engineer, C.P.R., St. John, N.B., born at Cobourg, Ont., Dec. 20, 1856.

N. E. Brooks, C.P.R., Division Engineer, Calgary, Alta., born at Sherbrooke, Que., Dec. 25, 1866.

D. Brown, Manager Milwaukee and Michigan Line and Grand Trunk Despatch, Detroit, Mich., born at Glasgow, Scotland, Dec. 21, 1843.

J. C. M. Buntzen, General Manager British Columbia Electric Ry. Co., at Vancouver, born at Copenhagen, Denmark, Dec. 16, 1859.

P. E. Demers, Trainmaster Central Vermont Ry., at Farnham, Que., born there Dec. 10, 1859.

A. Price, Superintendent C.P.R. at Fort William, Ont., born Dec. 6, 1861.

H. P. Dwight, President Great Northwestern Telegraph Co., Toronto, born at Belville, Jefferson Co., N.Y., Dec. 23, 1828.

P. Gitkins, General Manager Dominion Atlantic Ry. at Kentville, N.S., born at Harpenden, Herts, England, Dec. 25, 1850.

A. J. Gorrie, General Superintendent Great Northern Ry. of Canada at Quebec, born at Raith, Kirkcaldy, Scotland, Dec. 10, 1868.

D. B. Hanna, Third Vice-President Canadian Northern Ry. at Toronto, born at Thornliebank, Scotland, Dec. 20, 1858.

S. P. Howard, General Freight Agent Eastern and Lake Superior Division C.P.R. at Montreal, born there Dec. 30, 1865.

R. R. Jamison, General Superintendent Western Division C.P.R. at Calgary, Alta., born at Westover, Ont., Dec. 12, 1856.

W. Kennedy, Master Mechanic Middle Division G.T.R. at Toronto, born at Belleville, Ont., Dec. 23, 1869.

J. Niblock, Superintendent C.P.R. at Calgary, Alta., born in York County, Ont., Dec. 21, 1849.

J. V. Paul, Locomotive Fuel Inspector C.P.R. at Montreal, born at Mokelumne Hill, Cal., Dec. 29, 1863.

C. Schrieber, C.E., Deputy Minister of Railways and Canals, Ottawa, Ont., born at Bradwell, Essex, Eng., Dec. 14, 1831.

A. J. Shulman, City Passenger and Freight Agent C.P.R. at Buffalo, N.Y., born at Syracuse, N.Y., Dec. 11, 1873.

A. J. H. Stewart, Secretary Gulf Shore Ry. at Bathurst, N.B., born at Dalhousie, N.B., Dec. 3, 1860.

C. E. E. Ussher, General Passenger Agent C.P.R. lines east of Lake Superior, at Montreal, born at Niagara Falls, Ont., Dec. 24, 1857.

B. D. Webber, General Manager Canadian Pacific Despatch at Boston, Mass., born at Beverley, Mass., Dec. 3, 1851.

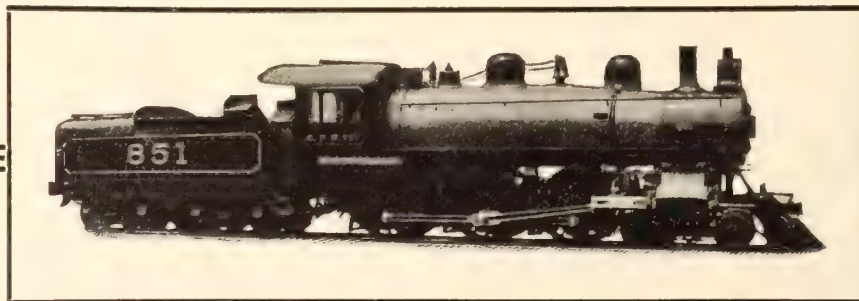
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BUILDERS OF LOCOMOTIVES FOR ALL CLASSES OF SERVICE.

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Treasurer, C. B. DENNY.
Mech. Engr., J. E. SAGUE.



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BROOKS WORKS, Dunkirk, N. Y.
PITTSBURG WORKS, Allegheny, Pa.
RICHMOND WORKS, Richmond, Va.

COOKE WORKS, Paterson, N. J.
RHODE ISLAND WORKS, Providence, R. I.
DICKSON WORKS, Scranton, Pa.
MANCHESTER WORKS, Manchester, N. H.

GENERAL OFFICE—25 Broad Street, NEW YORK CITY.

Railway Equipment Notes.

The G.T.R. has completed a new switching locomotive at Fort Gratiot, Mich.

The Intercolonial Ry. has completed a new passenger locomotive at its Moncton, N.B., shops.

The G.T.R. has bought material for 25 compound Richmond locomotives, 900 class, to be built at its Point St. Charles shops.

H. Weston, an employe of the C.P.R. car shops at Perth, Ont., has secured a patent for a pneumatic electric axle light system for lighting and ventilating all kinds of passenger cars.

The Point Ann Ry. Co., Belleville, Ont., has purchased a locomotive from the Estate of the late Jas. Cooper, Montreal, also 11 dump cars, and will probably add a passenger car to its equipment.

The American Locomotive Co. has completed, at its Paterson, N.J., works, two simple consolidation locomotives for the Sydney and Louisburg Ry. They are the first of their kind to be imported into Canada.

The Quebec Ry. Light and Power Co. is in the market for six box and 10 flat cars, the purchase of which was recommended at the annual meeting recently held. The Company will require the cars early in 1904.

The White Pass and Yukon Ry. is building two passenger cars at its Skagway shops. They are 40 ft. long over end sills, 47 ft. 10 in. over couplers, and 8 ft. 6 in. wide over sills. They will have a seating capacity of 50.

The Michigan Central Rd. has recently added the following shop equipment at its St. Thomas, Ont., shops: six inch radial drill, 200 lb. upright helve hammer, air compressor, variable self-feed rip saw, bulldozer, and an automatic saw plug machine.

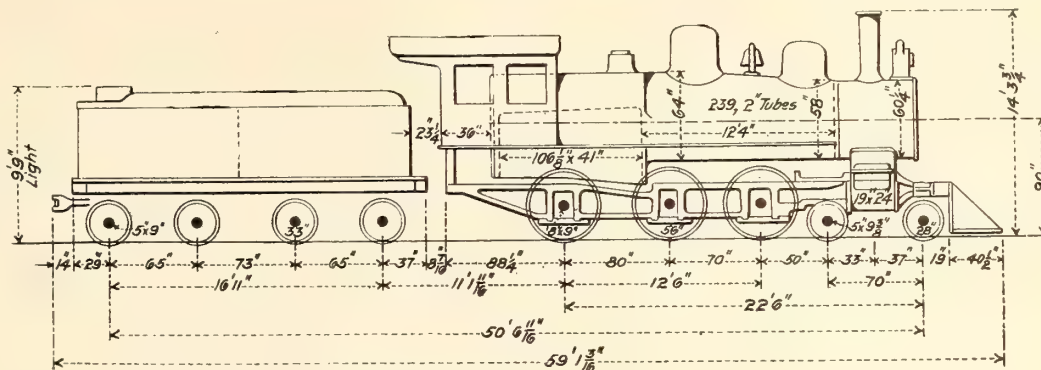
The P.E. Island Ry.'s rolling stock is to be equipped with the Westinghouse air brake, funds for that purpose having been voted at last session of the Dominion Parliament. It is intended to put the equipment on 13 locomotives, 33 passenger cars and 117 freight cars.

The Canadian Northern Ry. added to its equipment between Oct. 13 and Nov. 16, 5 freight locomotives built by the Canadian Locomotive Co., Kingston, Ont.; 61 box cars, 60,000 lbs. capacity, built by Rhodes, Curry & Co., Amherst, N.S.; and 90 box cars, 60,000 lbs. capacity.

The Michigan Central Rd. has under construction for its Canadian lines at its St. Thomas, Ont., shops four consolidation locomotives. It has recently completed at the same shops 24 box cars, 35 ft., 80,000 lbs. capacity; one coal car, 40 ft., 40,000 lbs. capacity; one flat car, 40 ft., 40,000 lbs. capacity.

The C.P.R. received the following equipment between Oct. 14 and Nov. 14: four passenger and five freight locomotives from Scotland; three freight locomotives from the Saxon Engine Works, Chemnitz, Germany; one freight locomotive from the American Locomotive Co.'s Schenectady shops; two first-class cars from the C.P.R. Hochelaga shops; one first-class car and 43 stock cars from Rhodes, Curry & Co., Amherst, N.S.; 94 box cars and 83 flat cars from the C.P.R. Perth shops; and six vans from its Farnham shops.

The suggestion having been made that Canadian manufacturers of locomotives should be asked to tender for locomotives required by the Indian Government and the various British Colonial government railways, an objection was made that the governments had



TEN WHEEL LOCOMOTIVE FOR CANADIAN NORTHERN RY.

no representative in Canada who could inspect the locomotives. This objection has been overcome, the Department of Railways having consented to either allow a member of its staff to make the inspections, or to select some one to do so. The arrangement was made at the instance of the Locomotive and Machine Co. of Montreal.

The Wabash Rd. has added three Atlantic type locomotives to those already in use in Canada, for the operation of the Wabash trains on the G.T.R. southern division between Windsor and Fort Erie, Ont. The locomotives have hitherto been in use on the Co.'s line in the U.S. They were built by the Baldwin Locomotive Works and have the following general dimensions: weight on drivers, 84,000 lbs.; total weight of engine and tender, loaded, 255,000 lbs.; diameter of driving wheels, 73 in.; diameter of cylinders, 19 in. by 26 in. stroke. Three more locomotives of the same class will also be brought into Canada, early in Dec.

The Canadian Northern Ry.'s locomotive, elevation of which is given on this page, is one of 25 built by the Canadian Locomotive Co. They weigh 133,000 lbs., with 107,000 lbs. on drivers. The boilers are Belpaire narrow fire-box, carrying 180 lbs. pressure, and having 1,691 sq. ft. of heating surface, of which 155 sq. ft. or 9% is in the fire-box. There are 239 2-in. tubes 12 ft. 4 in. long, the area of the cross-section of the 58-in. boiler taken up by the tubes being 27.5%. The cylinders are 19 in. x 24 in. and the drivers 56 in., enabling a tractive effort of 23,670 lbs. to be exerted. The special equipment includes Westinghouse-American brakes. Other dimensions are:

Wheel base, rigid.....	12 ft. 6 in.
Wheel base, total.....	22 ft. 6 in.
Length over all, engine and tender.....	59 ft. 1 3/16 in.
Height to centre of boiler.....	7 ft. 6 in.
Heating surface, fire-box.....	155 sq. ft.
Heating surface, tubes.....	1,536 sq. ft.
Heating surface, total.....	1,691 sq. ft.
Grate area.....	30 sq. ft.
Driving wheels, diameter.....	56 in.
Driving wheels, material of centres.....	Cast iron
Diameter and length of journals.....	8 in. x 9 in.
Truck wheels, diameter.....	28 in.
Weight of tender, loaded.....	101,000 lbs.
Capacity of tank, imperial gals.....	4,500
Coal capacity.....	9 tons

Canadian Society of Civil Engineers.—The first meeting of the general section was held in the Society's rooms, Montreal, Oct. 5. In the absence of the Chairman of the section, G. A. Mountain, W. McL. Walbank occupied the chair. A paper on sewage disposal at the Provincial jail at New Westminster, B.C., written by E. Mohun, was read by J. W. Hickman; and a paper on the Canadian Northern Ry. Co.'s fireproof grain storage elevator at Port Arthur, Ont., written by R. M. Pratt, was read by W. J. Sproule. These papers were partially discussed, a fuller discussion being postponed until the next meeting.

RAILWAY FINANCE, MEETINGS, ETC.

Algoma Central and Hudson Bay Ry.—An action has been entered in the U.S. circuit court at St. Paul, Minn., by Cook Bros., contractors, Sault Ste. Marie, Ont., against Foley Bros., Porter & Whalen, to recover \$26,605 stated to be due on account of the construction of the A.C. and H.B. Ry.

Atlantic and Lake Superior Ry.—The Dominion Government has appointed H. A. F. McLeod, C.E., a commissioner to ascertain the amount of subsidy due in respect of work done between Caplin and Paspebiac, Que., on the Baie des Chaleur section; and G. A. Mothersill has been appointed a commissioner to investigate claims for labor, boarding house claims, and claims for material and supplies, furnished in connection with the same piece of line.

Brockville, Westport and Northwestern Ry.—At the organization meeting held Nov. 23, the following were elected officers: President, J. Gerken, New York; Vice-President, C. R. King, Philadelphia; Treasurer, H. W. Gennerich, New York; Secretary, C. Heilshorn, New York; other directors: V. Schmitt, M. Zimmerman, W. H. Comstock, R. Bowie, Brockville, Ont.; J. Cumming, Lyn, Ont.; W. C. Fredenburg, Westport, Ont.; Counsel, Hohn and Smith, New York; W. S. Buell, Brockville, Ont. The old Brockville, Westport and Sault Ste. Marie Ry. Co. has now ceased to exist, and its lines and franchises are vested in the B. W. and N. W. Ry.

British Columbia Electric Ry. Co.—Earnings and expenses for Sept.:

GROSS EARNINGS.	1902.	1903.	Increase or Decrease.
Railway—Vancouver division	\$12,816	\$16,167	\$3,351+
Victoria "	9,725	9,359	366—
Westminster "	10,780	12,372	1,592+
Lighting—Vancouver division	12,768	18,198	5,430+
Victoria "	6,554	8,539	1,985+
	<hr/> 52,643	<hr/> 64,635	<hr/> 11,992+
Less working expenses	31,898	38,229	6,331+
	<hr/> 20,745	<hr/> 26,406	<hr/> 5,661+
Renewal funds.....	4,222	4,988	766+
Net income.....	<hr/> 16,523	<hr/> 21,418	<hr/> 4,895+
Aggregate gross earnings, July 1, to Sept. 30	<hr/> 155,157	<hr/> 188,373	<hr/> 33,216+
Aggregate net earnings, July 1, to Sept. 30.....	<hr/> \$49,422	<hr/> \$67,113	<hr/> \$17,691+

Calgary and Edmonton Ry.—Notice has been given that application will be made to the Minister of Railways, Dec. 16, to sanction the lease of the C. and E. Ry. to the Canadian Pacific Ry. The earnings of the railway have been included in those of the C.P.R. since Oct. 1.

Canadian Northern Ry.—Earnings:—

	1903.	1902.	Increase or Decrease.
July.....	\$254,800	\$132,000	\$122,800+
Aug.....	250,800	131,200	119,600+
Sept.....	270,800	184,300	86,500+
Oct.....	334,100	236,500	97,600+
	\$1,110,500	\$682,000	\$428,500+

Working expenses for Sept. \$179,700, net earnings \$91,100, against \$112,900 and \$69,400 respectively for Sept., 1902. Net earnings for three months to Sept. 30 \$262,000, against \$171,000 for same period 1902.

The following are the results for the year ended June 30: Gross earnings \$2,449,600, operating expenses \$1,589,300, net earnings \$860,300, charges \$637,400, surplus \$222,900.

Consolidated Lake Superior Co.—At the recent annual meeting held at New Haven, Conn., the directors did not present a report

or statement of accounts. The following directors were elected: G. Abbott, E. J. Berwind, F. H. Clergue, C. Shields, L. Harrison, H. G. Lloyd, H. K. McHarg, C. MacDonald, C. E. Orvis, G. Philler, S. M. Prevost, S. Rea, T. C. Search, J. S. Swartz, C. H. Tweed. An adjourned meeting was announced to be held Nov. 24.

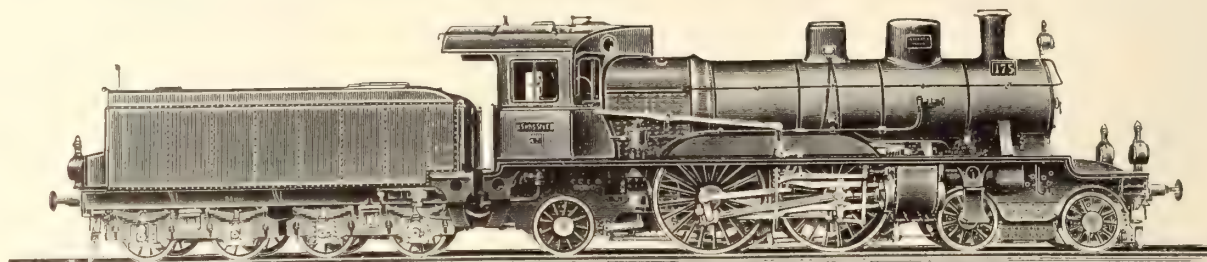
Dominion Atlantic Ry.—Gross earnings for Sept. \$143,000, against \$123,257 for Sept., 1902, making for nine months ended Sept. 30 \$766,976, against \$756,262 for same period 1902.

Duluth, South Shore and Atlantic Ry.—The following were elected directors at the recent annual meeting: Sir W. C. VanHorne, Sir T. G. Shaughnessy, W. F. Fitch, G. H. Church, R. B. Angus, C. Drinkwater, J. W. Sterling, R. Y. Hebden, T. W. Pearsall, J. O. Bloss, E. V. Skinner.

Esquimalt and Nanaimo Ry.—At the annual meeting recently held at Victoria, B.C., the following were elected officers: President, J. Dunsmuir; Vice-President, J. Hunter; Treasurer, J. A. Lindsay; Secretary, C. E. Pooley; other director, F. D. Little.

Great Northern Ry. of Canada.—The annual meeting fixed for Nov. 18, was adjourned until Dec. 2, no business being transacted.

Great Northwest Central Ry.—In the Ontario courts recently judgment was delivered in the action of Delap v. Codd. This was an action between two sets of directors of the G.N.C.Ry., which is now leased to the C.P.R. for 99 years. In 1893 it was decided that J. A. Codd had no financial interest in the railway, and the present decision declares that C. N. Armstrong holds no shares and is in no way interested in the railway. J. A. Codd and C. N. Armstrong represent one of

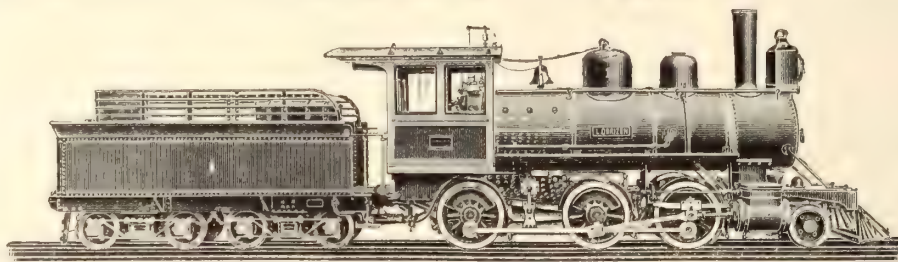


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the boards of directors. Chief Justice Falconbridge, in giving judgment, said the sheriff's sale of the shares in dispute, pursuant to the interpleader order of the writs of execution, was valid, and passed to the purchasers all of the shares so seized and sold by the sheriff for all purposes, free from any property or claim of the defendant Armstrong.

Halifax and Yarmouth Co.—A writ has been issued by W. C. Nunn, Toronto, against this Company, and a number of Philadelphia people interested, to recover \$9,040. This amount is claimed to be due as commission on the payment of a Government subsidy of \$90,400.

Halifax Electric Tramway Co.—Gross receipts from railway:

	1903.	1902.	Increase or Decrease.
Jan.....	\$10,867.33	\$10,764.58	\$102.75+
Feb.....	9,321.75	8,498.39	823.36+
Mar.....	10,195.12	9,761.57	433.55+
April.....	10,532.55	10,025.66	506.89+
May.....	10,768.11	11,126.66	358.55-
June.....	11,843.82	11,528.19	315.63+
July.....	15,942.37	14,834.69	1,107.68+
Aug.....	16,786.03	17,177.12	391.09-
Sept.....	18,494.60	17,494.21	1,000.39+
Oct.....	12,054.78	11,382.25	672.53+
	\$126,806.46	\$122,593.32	\$4,213.14+

Hamilton, Grimsby and Beamsville Electric Ry.—The bonds, amounting to \$85,000, issued when the line was built to Grimsby, Ont., are being taken up, and an issue of \$150,000 covering the entire line is being made. In connection with this issue a chattel mortgage for \$85,000 given by the Company to the Colonial Trust Co. has been registered.

Hamilton Street Ry.—The percentage for the three months ended Sept. 30 to be paid the city amounts to \$4,565.23, and the amount for mileage to \$1,879.96, a total of \$6,445.19.

The International Traction Co., which owns the Niagara Falls Park and River Ry., in Canada, the Clifton Suspension Bridge Co., the Queenston Heights Bridge Co., and the Niagara Falls Suspension Bridge Co., in its report for the year ended June 30, 1903, shows: gross earnings, \$1,285,170; net earnings, \$132,019; charges, \$191,772; deficit, \$59,353; against \$1,096,358 gross; \$210,000 net; \$133,645 charges, and \$76,254 surplus for the year ended June 30, 1902.

Lake Erie and Detroit River Ry.—A meeting of the shareholders was called to be held Nov. 30 for the purpose of ratifying an agreement with the Pere Marquette Rd., for trackage and other rights over the L.E. and D.R.Ry. Upon such approval application will be made Jan. 4, 1904, to the Minister of Railways for his final sanction.

An agreement has been made between the Chatham, Ont., city council and the L.E. and D.R.Ry. in respect of its claims for the removal of the shops of the old Erie and Huron Ry. to Walkerville. The agreement was reached after a conference with the directors of the Pere Marquette Rd., which controls the L.E. and D.R.Ry., and provides for the payment of \$16,000 in two instalments, or the establishment at Chatham of the shops of the Canadian division. These shops are now at Walkerville, but a decision has been reached to remove them to a more central point on the line.

London, Ont., Street Ry.—Gross earnings:

	1902-3.	1901-2.	Increase or Decrease.
Dec.....	\$15,041.80	\$12,947.48	\$2,094.32+
Jan.....	12,132.54	10,117.60	2,014.94+
Feb.....	10,716.42	8,894.78	1,821.64+
Mar.....	11,533.68	10,233.21	1,300.47+
Apr.....	11,818.06	9,941.04	1,876.12+
May.....	13,144.76	12,233.68	911.08+
June.....	16,223.80	13,642.77	2,581.03+
July.....	18,317.23	16,337.43	1,979.80+
Aug.....	19,094.16	16,102.08	2,992.08+
Sept.....	19,528.11	18,157.57	1,370.54+
Oct.....	13,772.11	11,645.46	2,126.65+
	\$161,322.67	\$140,254.00	\$21,068.67+

Manitoulin and North Shore Ry.—B. F. Fackenthal has been appointed receiver for Speyer & Co., who hold bonds to the extent of \$405,000, upon which default has been made.

Montreal Street Ry. Co.—Earnings and expenses for Oct., 1903:

	1902-3.	1901-2.	Increase or Decrease.
Passenger earnings.....	\$204,452.45	\$179,432.86	\$25,019.59+
Miscellaneous earnings.....	2,148.23	1,972.77	175.46+
Total earnings.....	206,600.68	181,405.63	25,195.05+
Operating expenses.....	110,708.92	96,418.92	12,290.00+
Net earnings.....	95,891.76	84,986.71	10,905.05+
Fixed charges.....	18,921.62	15,991.62	2,930.00+
Surplus.....	76,970.14	68,995.09	7,975.05+
Expenses % of car earnings.....	54.14	53.74	
Interest on M. P. & I. Ry. Co.'s bonds owned by this Co. not included.			

Ottawa and New York Ry.—Following are the traffic returns for the year ended June 30, 1903, as presented at the recent annual meeting:—Passenger earnings, \$53,483; freight earnings, \$44,386; mail earnings, \$1,419; express earnings, \$1,481; miscellaneous earnings \$470; Total, \$101,239. Number of passengers carried, 101,191; tons of freight carried, 64,799.

Port Arthur Electric Ry.—At a recent meeting of the Port Arthur, Ont., town council it was reported that the earnings of the street railway and electric light plant left a balance of over \$400 after meeting all expenses of maintenance, operating and interest on debentures. The railway, light and power debentures issued amount to \$200,000.

Pullman Co.—At the annual meeting held in Chicago, the reports showed: total revenue for the year, \$23,120,713; total expenses, \$19,622,933; net surplus, \$3,497,719; surplus brought forward, \$10,778,029, making the total surplus \$14,275,749. The general statistics showed that the mileage of railway under contract to the Company had been increased to 175,761 miles; passengers carried numbered 12,321,269, against 10,753,643; miles run by cars, 389,254,000, against 360,602,000; value of cars manufactured, \$22,546,878, against \$19,416,021; rentals received \$338,811, against \$316,089. The directors were re-elected, and the usual quarterly dividend of \$2 a share was declared.

J. E. Clement, private secretary to the Dominion Minister of Marine, recently brought an action in Montreal against the Company to recover damages. He was a passenger in one of the Company's sleeping cars between Jersey City, N.J., and Washington, D.C., in Dec., 1902, and claimed that \$65 had been taken from his pockets during the night. The loss was not discovered until some hours after he had left the car, and he admitted that he had not verified the fact that the money was in his pocket-book before he went to bed. The Company stated that every precaution was taken to prevent theft by its employees, or on the cars, and further contended that it was not liable, as there was a condition printed on the tickets to the effect that "baggage, wearing apparel, money and valuables taken into the car are entirely at owner's risk." The action was dismissed with costs.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net loss for Sept., \$5,308.12, against a net loss of \$273.78 for Sept., 1902; making for 10 months ended Sept. 30, net earnings \$5,511.16, against \$64,528.14 for same period 1901-2.

Quebec and Lake St. John Ry.—Gross receipts for Sept., \$53,919, against \$39,300; making for nine months ended Sept. 30, \$302,812, against \$270,714 for same period 1902.

Quebec Central Ry.—Gross earnings for Sept., \$68,332.17; working expenses, \$44,292.53; net earnings, \$24,039.64; against

\$71,219.26 gross and \$29,656.73 net for Sept., 1902. Gross earnings for nine months ended Sept. 30, \$530,003.88; net earnings, \$158,121.73, against \$510,616.45 gross and \$167,548.46 net for same period 1902.

Rutland Rd.—At the recent annual meeting the following directors were elected: Dr. W. S. Webb, Shelburne, Vt.; E. W. Rossiter, S. R. Callaway, C. M. Depew, J. A. Burden, jr., New York; H. H. Powers, Morristown, Vt.; F. D. Proctor, Proctor, Vt.; J. W. Stewart, Middlebury, Vt.; J. Lawrence, Groton, Mass.; P. W. Clement, G. T. Jarvis, Rutland, Vt.; G. Ball, Boston, Mass.; O. Merrill, Enosburg Falls, Vt.

Temiskaming and Northern Ontario Ry.

—The Commissioners have arranged with banks temporary loans aggregating \$2,300,000 at 5%, to run for a year. The price offered for the 30-year 3½% gold bonds was not sufficiently high to satisfy the Commissioners, and it was decided to effect temporary loans pending a general improvement in the money market. The loans effected will discharge current indebtedness and provide all requirements for some time ahead.

Toronto, Hamilton and Buffalo Ry.—Gross earnings for Oct., \$55,482.14, against \$43,801.42 for Oct., 1902. Gross earnings for five months ended Oct. 30, \$242,180.46, against \$183,581.25.

Two actions by Hamilton lawyers against W. G. E. Boyd, assignee of the insolvent estate of Maxey, Larson & Gough, contractors for the T.H. and B. tunnel, were recently dismissed without costs, by consent, at Hamilton. The plaintiffs, it was stated, had accepted 30 cents on the \$1 in full settlement of all claims.

Toronto Railway Co.—Car earnings:

	1903.	1902.	Increase or Decrease
Jan.....	\$161,938.22	\$137,135.21	\$24,803.01+
Feb.....	146,539.17	127,981.01	18,558.16+
Mar.....	159,913.85	141,681.22	18,232.63+
April.....	162,276.36	132,546.56	29,729.80+
May.....	174,519.58	145,195.54	29,324.04+
June.....	177,593.21	131,865.85	45,727.36+
July.....	192,629.06	162,072.02	30,556.94+
Aug.....	185,822.45	164,764.57	21,057.88+
Sept.....	237,009.91	195,610.37	41,399.54+
Oct.....	183,810.09	154,750.17	29,059.92+
	\$1,782,051.90	\$1,493,602.62	\$288,449.28+

White Pass and Yukon Ry.—Gross earnings for Sept., \$465,000; Oct. 1 to Oct. 14, \$141,264; Jan. 1 to Oct. 14, \$1,091,003.

Intercolonial Ry. Employees' Association.

—The 14th annual meeting was held at Moncton, N.B., recently, at which it was reported that the funds, etc., were in a satisfactory condition. The question of establishing a pension fund was under discussion, and a resolution favorable thereto was passed. The following officers were elected for the ensuing year: President, D. Pottinger; Vice-President, J. J. Wallace; Auditor, W. Brown.

The Canadian Railway Club held its regular monthly meeting in Montreal Nov. 3, Vice-President T. McHattie in the chair. Prof. Stansfield, of McGill University, gave an address on hardening and tempering of steel which was briefly discussed. The discussion on W. H. Hunter's paper on maintenance and system of keeping check of repairs to and general condition of the air brakes under freight cars was continued.

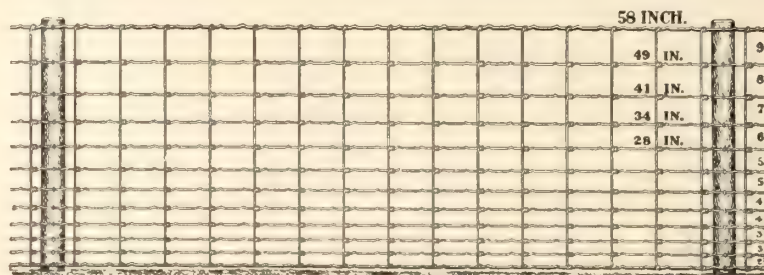
The U. S. customs authorities have notified Canadian railways that on dining cars crossing the boundary from Canada all supplies must be put under seal while passing through the U. S. The Canadian customs authorities have issued a notice providing that after Jan. 1, 1904, trains from the U. S. must stop at the boundary for customs inspection. Hitherto this inspection was made while the trains were running.

White Pass and Yukon Route.

At the annual meeting in London, Eng., Oct. 30, C. C. Macrae, who was elected a director in place of the late Sir A. Sarle, and who was subsequently elected Chairman of the board, presided. In referring to the annual report he stated that the gross profits were £126,515. Interest on debentures had been £52,668, and the sinking fund for 1902 was £16,462. Expenses amounted to £13,438. Deducting those three amounts £43,947 remained as the net profit balance, which was increased by the amount brought forward to £126,537. Out of this the whole of the sinking fund instalment for 1903 had already been provided—£13,459. Deducting that amount and the interim dividend, £34,375, there remained at the credit of profit and loss account £78,703, from which the directors proposed to declare a final dividend of 5s. per share, making 5% for the year, and leaving £44,326 to be carried forward. He could not help thinking that this dividend was exceedingly satisfactory, particularly in view of the circumstances of the past year's working. Comparing the accounts for 1902 with those of the two previous years, it might be thought that a considerable falling-off had taken place in the traffic in the last-mentioned year; but an analysis of the figures showed that that was not the case. The reduction both in gross and in net earnings, comparing the figures of 1902 with those of 1901, had been brought about by what every one who was connected with United States railways was familiar with—a rate war. During the contest the company was exposed to the active and strenuous opposition of their competitors, who, with the object, of course, of driving the company out altogether, were actually importing and selling goods in Dawson below cost price. Mr. Graves, however (the president of the local companies), had overcome all the opposition, and, although the company had suffered temporarily in the fight, yet it had maintained, and even strengthened, its position. It had worn down the competition, which was disastrous to both parties, and trade had been suffered to settle down to its normal conditions. He believed that there would be no repetition of the war. There had, however, necessarily been a falling off in revenue, and one could not all at once recover from such a state of things.

The recent award of the arbitrators deciding the disputed Alaskan boundary had a special interest for this company, as it settled the question as to the jurisdiction over the first 20 miles of the railway between Skagway and the summit of White pass, which would continue U.S. as heretofore. As British subjects, they regretted that the British contention was not sustained by the award, and that the whole of the company's railway would not be under the British flag, as they would have wished; but it must be borne in mind that this was more a matter of sentiment than of business. They had the natural gateway giving access to that enormous region, both British and U.S., through which the Yukon river and its tributaries extended for thousands of miles. The subjects of both nations must continue, as hitherto, to use this gateway in common. Under the reciprocal bonding arrangements between Canada and the U.S. Canadian traffic had passed over the U.S. portion of the line and U.S. traffic over the Canadian portion as freely as traffic between eastern and western Canada passed through U.S. territory en route or as traffic between the eastern and western states passed through Canadian territory. Both countries would suffer equally and enormously by disturbance of their reciprocal bonding arrangements, and it was more in harmony with the enlightened spirit of modern civilization to extend than to curtail such privileges. A good deal had been said in the past about "all-Canadian" or

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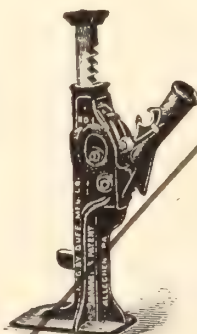


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"all-U.S." routes to British and U.S. Yukon gold fields respectively, and since the recent award there had been some revival of the all-Canadian route idea. At present an all-Canadian route, running as it must through barren mountains, would cost so much to build that it would involve the expenditure of many millions; and if it were constructed and in operation to-day it could not possibly earn enough to pay working expenses, to say nothing about interest on its cost, because the working expenses would be so enormous that the whole of the existing Yukon traffic would be insufficient to provide them at the rates which would be necessary in order to secure traffic. The report was adopted.

Canada Atlantic Ry. Co.'s Report.

The report presented at the annual meeting Sept. 30 consists entirely of financial and other statements. Following is the comparative statement for the years ended June 30, 1902 and 1903:

RECEIPTS.		1903.	1902.
Passenger.....	\$	302,368 08	310,096 83
Mails and express.....		30,525 41	29,466 80
Parlor cars.....		5,486 76	5,934 06
Freight.....		1,514,579 96	1,404,842 68
Elevators (net).....		7,725 25	26,366 91
Telegraph.....		4,024 06	3,712 00
Rental of terminals.....		22,980 00	22,980 00
Other rentals.....		19,279 88	13,317 52
Miscellaneous receipts.....		1,056 13	229 67
Total.....	\$	1,908,025 53	1,816,946 47
EXPENDITURES.		1903.	1902.
Maintenance way and structures.....	\$	239,919 96	210,955 42
Maintenance equipment.....		208,026 35	213,108 29
Conducting transportation.....		675,348 53	739,881 71
General expenses.....		65,440 46	55,979 98
Total operating expenses.....	\$	1,188,735 30	1,219,925 40
Balance.....		719,290 23	597,021 07
Taxes and rent leased lines.....		28,200 00	28,000 00
	\$	691,090 23	569,021 07
Net earnings barges and lake steamers season 1902.....		9,450 02	31,401 24
Net revenue.....	\$	700,540 25	\$600,422.31

The mileage operated is 468.4, of which 6.7 miles is from Albury Jct. to Swanton, Vt., C. V. Ry. under trackage rights. The freight traffic was 1,494,809 tons in 1902-3 against 1,545,240 in 1901-2, but the earnings increased from \$1,404,842.68 to \$1,514,579.96. The number of passengers carried was 377,779 in 1902-3, against 368,571 in 1901-2, but the earnings decreased from \$345,497.69 to \$338,380.25. The engine mileage in 1902-3 was: train miles earning revenue 1,436,790, piloting, switching and light running 207,017, work trains 138,428, total 1,782,235, against 1,714,572 in 1901-2. The car mileage in 1902-3 was: passenger 1,711,256, freight 21,643,459, total 23,354,715, against 24,395,451 in 1901-2. The classification of freight in 1902-3 in net tons was: grain 412,387, flour 60,351, coal 92,824, hay 56,616, live stock 13,765, lumber 427,609, manufactured goods 108,855, merchandise 101,752, pork 1,834, stone and brick 53,086, wood 64,728, wood pulp 62,398, all others 38,604, total 1,494,809, against 1,545,240 in 1901-2. The rolling stock consists of 64 locomotives, 43 passenger, baggage, mail and express cars, and 2,634 freight, conductor, tool and oil cars and snow plows.

The following were elected: President, C. J. Booth; other directors: J. F. Booth, W. Anderson, N. MacIntosh, G. W. Mitchell, J. A. Seybold, C. MacLachlan; Secretary-Treasurer, A. W. Fleck.

The Algoma Central and Hudson Bay Ry. is now giving a service of three passenger trains each way on its main line. The branch line from Michipicoten Harbor to the Helen mine has been closed for the winter.

An Ontario Per Diem Case.

The Central Ontario Ry. recently appealed to the arbitration committee of the American Railway Association respecting a reclaim against the G.T.R. Co., on cars in switching service at Trenton Jct.

The C.O.R.'s case was submitted by G. Collins, Manager, as follows: The C.O.R. perform a switching service for the G.T.R. at Trenton Jct., handling freight for the latter company between Trenton Jct. and Trenton, a distance of two miles, in carloads and less lots, for which it is allowed 2½c. per 100 lbs. on freight classifying 1 to 5, and 1c. per 100 lbs. on classes 6 to 10. This allowance is not added to the through rates, but is absorbed by the G.T.R. The C.O.R. became a party to the per diem agreement on July 1, 1902, fully believing that it would be entitled to reclaim on the G.T.R. for cars in this service as per rule 5. The C.O.R. furnishes a locomotive and crew to handle this traffic, and if it was obliged to pay the full per diem on cars in such service, the business would be handled at a loss. In view of the above facts, the C.O.R. claims to be entitled to a reclaim of at least four days on the G.T.R. on cars in switching service between Trenton and Trenton Jct., and in support of such claim refers to the following correspondence between the parties on the subject in question: July 17, 1902—Wrote M. C. Sturtevant, Car Service Agent G.T.R., requesting a reclaim as per rule 5. July 30, 1902—Letter from M. C. Sturtevant, agreeing to allow a reclaim of three days. Aug. 9, 1902—Wrote M. C. Sturtevant, asking for four days' reclaim. Aug. 20, 1902—M. C. Sturtevant replied, agreeing to allow a reclaim of four days. Sept. 20, 1902—M. C. Sturtevant wrote that the G.T.R. could not allow any reclaim whatever, owing to the fact that the C.O.R. was paid by the 100 lbs. instead of by the car. Jan. 16, 1903—G. Collins met M. C. Sturtevant at his office in Montreal, the matter was fully discussed, and the latter gentleman (after conferring with his Freight Traffic Manager), confirmed a reclaim of four days on all cars handled from July 1, 1902, to Nov. 30, 1902, and positively agreed to allow three days' reclaim on all cars after Dec. 1, 1902. Jan. 21, 1903—J. W. Loud, Freight Traffic Manager of the G.T.R., wrote that he had been looking into the matter, and, while admitting there was some merit in the C.O.R.'s argument, he had come to the conclusion that the C.O.R. was not entitled to a reclaim. Trenton is a competitive point reached by both the G.T.R. and C.P.R. That rates to this point are agreed upon, and in order to be placed upon an equal basis with the C.P.R. as regards delivery, etc., in the town, the G.T.R. arranged with the C.O.R. to handle its business between the junctions of the G.T.R. and the town proper, for which service it pays a rate per 100 lbs. instead of by the car.

M. C. Sturtevant, Car Service Agent G.T.R., submitted its case as follows: The G.T.R. for many years had a station called Trenton, which was two miles from the town of that name; delivery of Trenton goods being taken by the consignees at the G.T.R. station. A few years ago the C.O.R. was built, running from Trenton town and points south thereof, crossing the G.T.R. at the G.T. Trenton station and running north, connecting with the C.P.R. at Central Ontario Jct. The rates from Trenton station G.T.R., prior to the opening of the C.O.R., were practically the same as those which governed at contiguous stations on the G.T.R. east and west of it. When the C.O.R. commenced operations, by its connection with the C.P.R., it made the rates which the G.T.R. had in effect at its Trenton Station (then changed to Trenton Jct.) to and from Trenton town. Therefore, on competitive points traffic, the G.T.R. had to make, by interchange with the C.O.R. at

Trenton Jct., the same rates to and from Trenton town as made via the C.P.R. and the C.O.R. Under this arrangement the C.O.R. is allowed, as stated by Mr. Collins, on classes 1 to 5 2½c. per 100 lbs., and 6 to 10 1c. per 100 lbs. The G.T.R. looks upon this simply as a division of the rate, just the same as the basis which governs on traffic to points north and south of Trenton Jct., which, in the case of south, is to Picton, 32 miles, and north to Bancroft, 84 miles, the C.O.R. being allowed an arbitrary rate per 100 lbs. in each case. Under these circumstances, the G.T.R. claims that the Trenton traffic is not a switch service, but simply a division of the through rate on an arbitrary basis of an allowance of cents per 100 lbs., instead of a mileage pro-rate to the C.O.R. This method of dividing rates between railways is not unusual, in fact it is very common in Canada on short lateral lines running in connection with the G.T.R. and C.P.R. Under these conditions, if the service which the C.O.R. performs for the G.T.R. on Trenton traffic is a switch service, what is the service which it performs at Picton or Bancroft? Surely that cannot be considered a switch service.

The Arbitration Committee decided that, while there is nothing in rule 5 to compel the allowance of a reclaim under the circumstances stated, there is nothing in the per diem rules to prevent such agreements as were made by the C.O.R. and the G.T.R. on the various dates named, and that the G.T.R. shall pay the C.O.R. reclaim of 80c. on all cars handled from July 1, 1902, to Nov. 30, 1902, inclusive, and a reclaim of 60c. on all cars handled from Dec. 1, 1902, inclusive, to Jan. 21, 1903, inclusive.—Railway Equipment Register.

Cattle Guard Commission Report.

The report of F. W. Holt, C.E., and Geo. Robertson, who were appointed by the Dominion Government to investigate the question of providing a suitable cattle guard, which was laid on the table at the close of the recent session of the Dominion Parliament, is a voluminous document. The instructions given the commissioners were to make examination of the guards in use on the principal lines both in Canada and the U.S., and also of such inventions as might be presented. In accordance with these instructions the commissioners travelled as far west as Winnipeg, visited a number of points in the U.S., inspecting all the guards in use, and gathering all the information possible in regard to the use of the guards on the different lines, and the views of officials. At Chicago they were present at the convention of the Roadmasters' and Maintenance of Way Association, when a discussion on cattle guards came up, and a good deal of information was gathered there. In Ontario and other points much information was gathered from railway officials and others. The commissioners finally arranged to have tests made of new devices that had been submitted by inventors, which were made at Ottawa, and were continued over a lengthened period. The guards presented for trial were divided into five classes: (1) gate guards lying usually in the plane of the rails, but working about a horizontal axis and working in the quadrant next the highway, that is, rising from the party approaching from the highway; (2) gate guards working in the opposite quadrant, that is, rising toward the approach; (3) those that swing about a vertical axis in a horizontal quadrant; (4) those that swing in a vertical plane about a horizontal axis, that is to say edgewise; (5) guards that are practically surface guards. After explaining the working of the appliances tested, or of which models were submitted, the commissioners came to the conclusion that no guard could be found which has been in use sufficiently long to prove that it can be maintained in a state

of efficiency, and at the same time be a safe appliance for railway use. There are, doubtless, a number of appliances that will act as bluff guards, provided the cattle are not permitted to loiter around them. Some of those that have been proved to be positive turners of stock may, upon extended use, prove to be efficient and safe appliances on proper use, but the ideas are too untried to recommend that they shall be made the legal protection between the railway companies and the stock owners.

The C.P.R. and its subsidiary, the Minneapolis, St. Paul and Sault Ste. Marie Ry., have become members of the Transcontinental Passenger Association. The C.P.R. was a member of the old transcontinental associations at various times when they were in existence.

Wm. Jessop & Sons, Ltd., steel manufacturers, Sheffield, Eng., have through their Canadian representative, C. L. Bailey, asked what inducement the Toronto city council will offer them to locate a plant in Toronto which would employ 2,000 men. Mr. Bailey is now in England.

TRANSPORTATION APPOINTMENTS.

Bay of Quinte Ry., Thousand Islands Ry., and Deseronto Navigation Co. (Ltd.).—E. Walter Rathbun, heretofore General Agent, Bay of Quinte Ry., has been elected Vice-President of the B. of Q. Ry., T.I. Ry., and of the D.N.Co. He is also President of the Oshawa Ry. Co.

Canadian Manufacturers' Association.—W. H. T. Miller, heretofore chief clerk to the Assistant Traffic Manager, C.P.R. at Toronto, has been appointed as Railway Classification and Freight Rate expert to the Canadian Manufacturers' Association. Office at Toronto.

Canadian Northern Ry.—G. G. Ruel, heretofore law clerk in the Department of Railways and Canals, Ottawa, has been appointed Assistant Solicitor. Office, Toronto.

Canadian Pacific Ry.—M. Hinchey, heretofore Trainmaster district 1, Eastern division, has been appointed Chief Train Dispatcher same district, succeeding J. A. Armstrong, transferred to Ottawa.

Jas. H. Boyle, for the past 15 years a conductor, with headquarters at Farnham, Que.,

has been appointed Trainmaster, district 1, Eastern division, succeeding M. Hinchey, transferred. Office, Farnham, Que.

Jules Hone, jr., heretofore joint ticket agent, Windsor Hotel, Montreal, has been appointed City Passenger Agent at Quebec, succeeding E. H. Crean, deceased.

R. W. McCormick, heretofore Chief Train Dispatcher at Ottawa, has been appointed Trainmaster district 4, Eastern division, succeeding F. M. Spaidal, appointed Superintendent district 2, Eastern division. Office, Ottawa, Ont.

J. A. Armstrong, heretofore Chief Train Dispatcher, district 1, Eastern division, at Farnham, Que., has been appointed Chief Train Dispatcher district 2, at Ottawa, Ont., succeeding R. W. McCormick, transferred.

The Ottawa, Northern and Western Ry. having been leased to the C.P.R. Co., it has since midnight of Oct. 31 been operated as part of district 4 of the Eastern division of the C.P.R. All employes then in the O.N. and W.R. service then became employes of the C.P.R. Co. The line between Hull and Gracefield has been named the Gracefield branch, and the line between Hull and Waltham the Waltham branch. The positions

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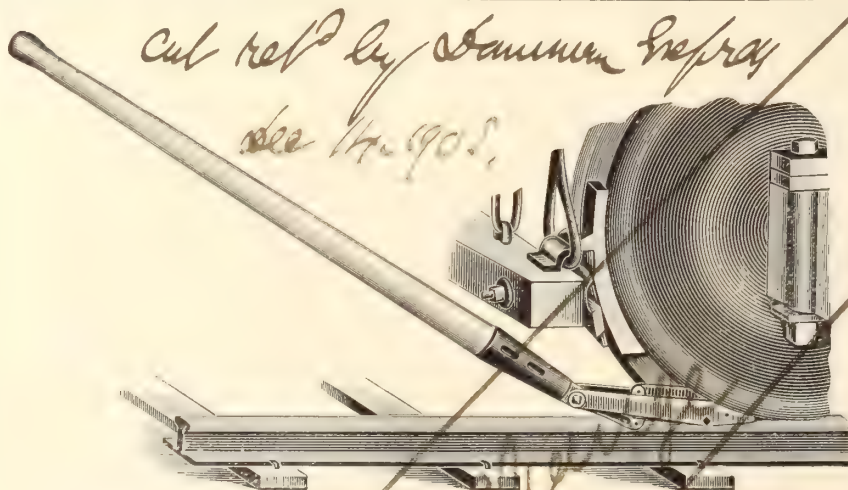
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heretofore held by H. S. Maltby, Secretary-Treasurer; B. Sims, Assistant Engineer, and G. A. Lizotte, Auditor, have been abolished.

F. P. McKee has been appointed freight and passenger agent at Washington, D.C., succeeding W. W. Merkle.

Cumberland Ry. and Coal. Co.—D. Stewart, heretofore General Sales and Purchasing Agent, has been appointed Assistant to the General Manager, succeeding E. Laflamme, resigned. Office, Springfield, N.S. He will continue to act temporarily as General Sales and Purchasing Agent.

Grand Trunk Ry.—T. Crossen has been appointed locomotive foreman at Allandale, Ont., succeeding D. E. Smith, resigned.

A. E. Till, of Toronto, has been appointed locomotive foreman at London, Ont., succeeding A. S. Wright, appointed chief fitter at the Stratford shops.

H. S. McQueen, jr., has been appointed contracting freight agent at Detroit, Mich., succeeding P. C. Crean resigned to join the staff of the Detroit and Toledo Shore Rd., Detroit.

Great Northern Ry. of Canada.—E. E. Ling, Treasurer, has resigned, and the position has been abolished.

A. E. Doucet, Chief Engineer, has resigned. A successor has not yet been named. Mr. Doucet continues as Chief Engineer of the Quebec and Lake St. John Ry.

Great Northern Ry., U.S.A.—Louis Hill has been appointed Vice-President, succeeding his brother, J. N. Hill, who has resigned on account of ill-health.

H. E. Watkins, for the past 3½ years clerk in the Company's Toronto office, has been appointed Travelling Agent for Michigan. Headquarters, Detroit. J. J. Johnston, heretofore of the C.P.R. city ticket office, Toronto, has succeeded Mr. Watkins as assistant to C. W. Graves, District Freight and Passenger Agent, Toronto.

Grand Trunk Pacific Ry.—A Montreal dispatch states that J. W. Kneeshaw, Assistant Stationery Agent of the G.T.R. at Detroit, Mich., has been appointed Purchasing Agent G.T. Pacific Ry., with office at Winnipeg.

Halifax Electric Tramway Co.—Jas. Crosby, heretofore General Superintendent, has been appointed Manager, succeeding F. A. Hunbless, who has been appointed Manager of the Worcester Consolidated Street Ry. Co., Worcester, Mass.

Intercolonial Ry.—L. Desjardins, heretofore Chief Train Dispatcher at Levis, Que., is reported to have been appointed to a similar position at Riviere du Loup, succeeding J. H. Brassard, resigned. A. Fortin is reported to have been appointed Chief Train Dispatcher at Levis, succeeding L. Desjardins. We were advised Nov. 18 that no permanent appointments had been made at Riviere du Loup or Levis.

Inverness Ry. and Coal Co.—The officers of this company are; President, W. MacKenzie, Toronto; Vice-President, D. D. Mann, Toronto; Secretary-Treasurer, A. W. MacKenzie, Toronto; General Manager, J. L. Brass, Inverness, N.S.; Mine Manager, J. C. Mitchell, Inverness; Chief Accountant, H. F. Deas, Inverness; Master Mechanic, J. R. Morrison, Inverness; Roadmaster, R. McNeil, Inverness.

Lehigh Valley Rd.—G. R. Chesbrough, heretofore Western Passenger Agent at Buffalo, N.Y., has been appointed General Eastern Agent at New York, vice A. A. Heard, appointed Assistant General Passenger Agent of the Delaware and Hudson Rd. at Albany, N.Y. G. L. Doughty, heretofore Soliciting Passenger Agent in New York, has been appointed City Passenger Agent there. W. B. Wheeler, heretofore Northwestern Passenger Agent at Chicago, has been appointed West-

ern Passenger Agent at Buffalo, succeeding G. R. Chesbrough. G. Eade, Jr., heretofore City Ticket and Passenger Agent at New York, has been appointed Northwestern Passenger Agent at Chicago, succeeding W. B. Wheeler.

Montreal Street Ry.—R. M. Hannaford, heretofore acting Engineer in charge of Permanent Way Buildings and Bridges, has been appointed Engineer in charge of Permanent Way Buildings and Bridges, succeeding J. S. Vindin, deceased.

Quebec Southern Ry.—C. B. Hibbard, heretofore General Passenger Agent Rutland Rd., has been appointed General Manager. He will have charge of transportation and traffic, and perform such other duties as may be assigned to him by the President. Office, Board of Trade Building, Montreal.

Rutland Rd.—C. A. Nimmo, heretofore General Western Passenger Agent Boston and Maine Rd., has been appointed General Passenger Agent Rutland Rd., succeeding C. B. Hibbard, resigned.

A C.P.R. Metallurgical Department.—A press report recently stated that the C.P.R. had instituted a mining and metallurgical department for the purpose of developing coal properties to provide coal for its own consumption. We are informed that the company has been doing a certain amount of mining and metallurgical work for several years. As it owns large acreages of coal lands, it will probably be its policy to place a certain number of its properties in a position to make shipments with a view of supplementing the supply of fuel along its lines. A certain amount of exploration work has been carried on at Banff, Alta., with a view of developing a property which will furnish a supply of domestic fuel.

The American Association of Travelling Passenger Agents' annual excursion, which took place to New Orleans early in Nov., was attended by several Canadian representatives, including T. Henry, Traffic Manager Richelieu & Ontario Navigation Co., Montreal, and wife; J. Quinlan, District Passenger Agent G.T.R., Montreal, and wife; H. B. Mussen, Contracting Agent Canada Atlantic Ry., Montreal; S. J. Murphy, T. P. A., and J. V. Foy, Niagara Navigation Co., Toronto; W. F. Clancy, T. P. A. Richelieu & Ontario Navigation Co., Niagara Falls, N.Y., and wife; J. McKenna, Travelling Passenger Agent C.P.R., St. John, N.B.; H. B. Howard, C.P.R., St. John, N.B., and wife. A number of the party went from New Orleans via Mobile to Havana and return. The next excursion of the Association will be to Mexico in Dec., 1904.

Sydney and the Ticket Agents.—The Sydney Post re-publishes from our Nov. issue the last paragraph of our report of the Canadian Ticket Agents' Association meeting there, respecting which it says:—"At Washington, the previous year, the convention was plainly told that the hotel accommodations at Sydney would prove inadequate for such a large gathering, and if in the face of this the convention decided to come it should not 'kick' at this late season. Other delegations have been here, and they said Sydney made an ideal place for such meetings. Unfortunately the ticket men were here at a time of the year that was not the most attractive—it rained practically during their entire stay in town. This, by the way, calls attention to the need of a summer hotel at Sydney. Such has been taken of for some time past, but nothing definite has been done. From the above comment, which comes from a journal accredited to be one of the most reputable in Canada, it will be seen that we cannot too well safeguard the reputation of our town as a convention city."

MAINLY ABOUT PEOPLE.

F. W. Morse, 3rd Vice-President G.T.R., has been spending some time at Hot Springs, Va.

C. H. Coste, the eight year old son of E. Coste, M.E., died at Grace hospital, Toronto, Nov. 8.

W. R. Baker, Assistant to the 2nd Vice-President C.P.R., has returned to Montreal from England.

Jos. Hobson, Chief Engineer G.T.R., slipped while getting into a bath, late in Oct., breaking one of his ribs.

Dr. W. S. Webb, President Rutland Rd., has returned to New York from England much improved in health.

Miss A. Clark, daughter of Geo. Clark, formerly a G.T.R. train dispatcher at London, Ont., died suddenly there recently.

D. W. Campbell, Superintendent C.P.R. Atlantic steamships, Montreal, is recovering from his recent attack of typhoid fever.

J. W. Smith, of St. John, N.B., has been appointed forwarding agent of the Canadian Manufacturers' Association at St. John, N.B.

G. M. Bosworth, 4th Vice-President C.P.R., is in Great Britain on a business trip, and is expected to return to Montreal by Christmas.

J. U. Gregory, agent of the Department of Marine at Quebec, has been named a Companion of the Imperial Service Order by the King.

T. V. Cook, formerly storekeeper Intercolonial Ry., Moncton, N.B., and who has been in the railway service for 33 years, died there Nov. 7.

Mrs. MacLeod, mother of M. H. MacLeod, Chief Engineer, Canadian Northern Ry., Winnipeg, died at East Toronto, Nov. 3, aged 81.

J. T. Meany, formerly agent of the Reid Newfoundland Co. at Sydney, N.S., was acquitted upon being tried on a charge of embezzling \$400.

W. F. Egg, City Ticket Agent, C.P.R., at Montreal, returned to his office early in Nov., after an absence of some months on account of ill-health.

A. P. Allingham, chief rate clerk C.P.R., Montreal, was presented with a gold watch and locket by the clerks of the staff on resigning from the service.

Sir Wm. VanHorne has returned to Montreal from his seaside residence at St. Andrews. Miss VanHorne, who has been seriously ill, is recovering.

T. H. Creedon was entertained at dinner by a number of friends at Sydney, N.S., Nov. 6, on resigning his position as Superintendent Cape Breton Electric Co.

R. Holwell, Assistant in the C.P.R. freight office, Brandon, Man., recently absconded with over \$4,000. Cheques valued at \$3,950, have been recovered.

W. H. Moore, Assistant to the President, Toronto Ry., has returned from West Baden, Ind., where he went for a few weeks to recuperate after his recent operation.

G. H. Webster, C.P.R. Right of Way Agent, went to Pasadena, California, late in Oct., and it is hoped that he will be well enough to be back in his office at Montreal in Dec.

D. B. Hanna, 3rd Vice-President, Canadian Northern Ry., with Mrs. Hanna and family, who have arrived in Toronto from Winnipeg, have taken up their residence in Elmsley Place.

T. G. Peat, who was associated with the contracting firm of Moore & Pearson, who built several sections of the old Great Western Ry., died in Hamilton, Ont., recently, aged 84.

A. M. Paton, formerly telegraph operator on the G.T.R. at Lindsay, Ont., has been appointed Chief Dispatcher, Missouri division, Chicago, Rock Island and Pacific Ry., at Trenton, Mo.

W. B. Howard, Jr., of the C.P.R. divisional passenger staff, St. John, N.B., was presented with a case of silverware by the office staff, Nov. 4, on the occasion of his marriage to Miss M. A. Fowler.

Thos. Shaughnessy, father of Sir Thos. G. Shaughnessy, President, C.P.R., died at Milwaukee, Wis., Nov. 14, aged 85. He was a native of Ireland, and had been a resident of Milwaukee for 62 years.

The Governor-General recently held an investiture of the Imperial Service Order at Ottawa, when Dr. Martin Murphy, Provincial Engineer of Nova Scotia, and K. Tully, C.E., Toronto, were made Companions.

B. J. Coghlin, manufacturer of springs and axles, Montreal, recently returned there after a three months' trip to Great Britain and Ireland. His son, B. W. Coghlin, was recently married in Montreal to Miss Jean Dawes.

Hon. L. J. Forget, President, Richelieu and Ontario Navigation Co., has been appointed Chairman, and Sir T. G. Shaughnessy, President C.P.R., has been elected a member of the board of governors of Laval University.

J. Hone, Jr., was recently presented with a gold watch by the management and staff of the Windsor hotel, Montreal, on giving up joint charge of the union ticket agency in the hotel to become C.P.R. city ticket agent at Quebec.

J. A. Heyn, of Heyn Bros., Belfast, Ireland, managers of the Ulster Steamships Co. (Ltd.), owners of the Head Line of steamers trading between Montreal and other Canadian ports and Ireland, is visiting eastern Canada in the interests of the line.

T. C. Frenyear, who has recently been appointed General Sales Agent of the Canadian Westinghouse Co., with headquarters at Toronto, was taken ill with typhoid fever while on a western trip, and is in the general hospital at Fort William, Ont.

Mrs. James Bryce, wife of the Vice-President and General Manager Dominion Ex. Co., who has been ill for some months with typhoid fever, has been spending some time at Atlantic City, N.J., recuperating. She was accompanied by her husband.

W. Nichols, G.T.R. agent at St. Hyacinthe, Que., was run over and killed by a ballast train there Nov. 7. He appears to have been crossing the track in front of the train, when he slipped, and his foot got caught between the rails at a switch.

S. G. Tate, formerly Travelling Freight Agent Michigan Central Rd. at Buffalo, who resigned to take a position in the office of the American Ex. Co.'s foreign department in New York, has been appointed Assistant Freight Agent for that company in Liverpool, Eng.

J. B. Lambkin, Assistant General Passenger Agent, Intercolonial Ry., who had charge of the party of Superintendents of Bridges and Buildings of America during the trip over the I.C.R. at the end of Oct., was presented with a copper and silver smoking set at the conclusion of the trip.

F. L. Wanklyn, Vice-President Montreal Street Ry., was elected President, and C. E. Ussher, General Passenger Agent C.P.R. Eastern lines, a member of the committee of the Province of Quebec Association for the protection of fish and game, at the 47th annual meeting recently held in Montreal.

R. W. Leonard, ex-General Manager and Chief Engineer, Cape Breton Ry., is now Resident Engineer in charge of construction of Water and Electrical Power Development for the Hamilton Cataract Power, Light and

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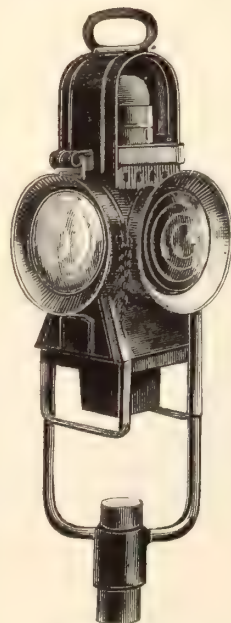
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Traction Co., Ltd., near St. Catharines, Ont. The Company is developing 35,000 h.p., with a head of 267 ft.

E. Reynolds, who was recently appointed Assistant Superintendent C.P.R., at Quebec, was born there in 1848, and entered railway service in 1878 on the old North Shore Ry., remaining with the C.P.R. when that Company took over the line. For some years he has been conductor on express trains between Quebec and Montreal.

H. Shackell, general agent, Detroit, Grand Haven and Milwaukee Rd., at Milwaukee, Wis., died there recently, aged 69. He was born in London, Eng., in 1834, and entered the service of the old Great Western Ry. of Canada as Auditor in 1859, remaining with the G.T.R. as Auditor and General Passenger Agent for a number of years.

F. S. Stocking, city ticket agent Quebec Central Ry. at Quebec, was presented with a cabinet of silverware by a number of citizens, a silver chafing dish by the Quebec Amateur Athletic Association, a silver kettle by the Quebec Rugby Football and Hockey Clubs, and a silver tea service by the Quebec Snowshoe Club, on the occasion of his recent marriage to Miss R. White, at Montreal.

E. de la Hooke, G.T.R. city agent, London, Ont., recently received \$10, in an unsigned letter, from some one who stated that he formerly travelled over the G.T.R. and arranged with the conductors about his fare; his conscience now troubles him and he sends the money to cover the amounts he saved. W. Fulton, C.P.R. city ticket agent at London, received a similar communication, \$8 being enclosed.

With a view of adding to the attractiveness of Quebec city as a winter resort a movement has been set on foot to arrange for a regular old-time programme of winter sports. Those in charge of the matter include E. A. Evans, Quebec Ry. Light and Power Co., who was Chairman of the public meeting; J. G. Scott, A. Hardy, Quebec and Lake St. John Ry.; G. U. G. Holman, Levis County Ry.; H. Graves, C.P.R.; F. O'Connell, Quebec Central Ry.

Gerard G. Ruel, who has been appointed Assistant Solicitor Canadian Northern Ry., was born at St. John, N.B., July 5, 1866, and studied law in St. John, subsequently graduating in law at Harvard university, Cambridge, Mass., in 1889. He practised in St. John for a number of years, latterly as a member of the firm of Blair, Ruel and Blair. From July, 1899, to Oct. 1, 1903, he was law clerk of the Department of Railways and Canals at Ottawa.

Jules Hone, Jr., who has been appointed C.P.R. passenger and ticket agent at Quebec, was born at Montreal, Sept. 8, 1873, and entered transportation service 1889, since which his record has been: Mar., 1889, to June, 1890, clerk in Car Accountant's office; Mar., 1890, to June, 1890, secretary to Manager of Transportation, C.P.R.; June, 1890, to Aug., 1891, clerk in Car Accountant's office; Aug., 1891, to Sept., 1892, clerk, city ticket office, Montreal; Sept., 1892, to July, 1893, clerk, city ticket office, Ottawa; July, 1893, to Nov., 1903, joint agent of the union ticket and telegraph office, Windsor hotel, Montreal.

F. M. Spaidal, who was recently appointed Superintendent C.P.R. district 2, Eastern division, and Montreal terminals, was born at Gananoque, Ont., Nov. 13, 1858, and entered transportation service 1876, since which his record has been: Mar., 1876, to June, 1883, operator, agent and dispatcher G.T.R. at various points between Kingston and Montreal; June, 1883, to June, 1885, agent and dispatcher Union Pacific Rd. at Butte, Mont., and other points; Aug., 1885, to Dec., 1885, operator C.P.R. Ottawa; Dec., 1885, to June, 1893, dispatcher C.P.R. Ottawa; June, 1893,

to Sept., 1897, Chief Dispatcher C.P.R. Ottawa; Sept., 1897, to Oct., 1903, Trainmaster C.P.R. Ottawa.

E. W. Rathbun, President of the Bay of Quinte Ry. Co., Thousand Islands Ry., Deseronto Navigation Co., and of the Rathbun Co., died suddenly at Deseronto, Ont., Nov. 24. He was born at Ashburn, N.Y., Oct. 5, 1842, and joined his father in the firm of H. B. Rathbun & Co. at Deseronto, 1861. The firm carry on an extensive lumbering business, the manufacturing of cars, etc., at Deseronto, and in connection therewith built the Bay of Quinte Ry., the Thousand Islands Ry., and operate the Deseronto Navigation Co. In addition the firm owns barges, etc., operating on the minor inland waters of Ontario. He was interested in the formation of the Dominion Marine Association in May, and was elected one of its vice-presidents.

C. B. Hibbard, who has been appointed General Manager, Quebec Southern Ry. at Montreal, was born at St. John's, Que., Mar. 31, 1858, and entered railway service 1872, since which he has been consecutively to May, 1875, telegraph messenger and telegraph operator, G.T.R., May, 1875, to April, 1880,



THE LATE E. W. RATHBUN, OF DESERONTO.

telegraph operator, Montreal Telegraph Co., and clerk U.S. and Canadian Express Co., St. John's, Que.; April, 1880, to July, 1889, stenographer and chief clerk, passenger department, Central Vermont Rd., St. Albans, Vt.; July, 1889, to June, 1895, General Passenger Agent, Duluth, South Shore and Atlantic Ry., and Minneapolis, St. Paul and Sault Ste. Marie Ry.; June, 1895, to Nov., 1897, President, Northern New York Rd.; Nov., 1897, to Nov., 1899, President and General Manager, New York and Ottawa Rd.; May, 1900, to Nov., 1903, General Passenger Agent, Rutland Rd.

J. F. Richardson, who has been appointed Superintendent Eastern Division, C.P.R. telegraphs, at Montreal, was born at Granby, Que., Aug. 23, 1861. His official record is: 1876 to 1880 with Central Vermont Ry.; 1880 to 1881, with Montreal Telegraph Co.; 1881 to 1883, with Great Northwestern Telegraph Co.; 1883 entered the employ of the C.P.R. Telegraphs, and has been successively to 1903, chief operator, assistant electrician, Superintendent of Construction and Inspector. In 1897 he was engaged by the Dominion Government to report on the routes to the Yukon and estimate the cost of constructing a telegraph line there; in 1899 he was engaged

by the Dominion Government to superintend the construction of the telegraph line from Bennett, B.C., to Dawson City, Yukon; and in 1901 was in charge of the telegraph service on the Royal train during the trip of the Prince and Princess of Wales through Canada.

G. J. Bury, whose portrait appears on the first page of this issue, was born at Montreal Mar. 6, 1866, and was educated at Montreal College. He entered railway service on the C.P.R. 1883, since which his record has been: 1883 to 1887, clerk in purchasing department and clerk in General Manager's office; 1887 to 1889, secretary to Vice-President, afterwards President; 1889 to Mar., 1890, acting Superintendent Dining, Sleeping and Parlor Car Service; Mar., 1890, to Sept., 1899, successively Assistant Superintendent at Chalk River, Ont., and Superintendent North Bay, Ont.; Sept., 1899, to Feb., 1901, Superintendent Fort William, Ont.; Feb., 1901, to Feb., 1902, Superintendent Crow's Nest Pass line, Cranbrook, B.C.; Feb., 1902, to May, 1902, Assistant General Superintendent Lake Superior division at North Bay; May, 1902, to date, General Superintendent same division; entire service with C.P.R.

W. J. Camp, who has been appointed Electrical Engineer C.P.R. Telegraphs, was born at Oakville, Ont., April 22, 1855, and commenced his telegraph career in the freight office of the G.T.R. at Prescott, Ont. He entered the service of the Dominion Telegraph Co. in 1874, his subsequent record being: 1874 to 1875, operator Dominion Telegraph Co., Prescott, Ont.; 1875 to 1876, bookkeeper same company at Montreal; 1876, manager same company at Watertown, N.Y.; 1877 to 1878, on railway work in U.S. and latterly night chief Dominion Telegraph Co., Montreal; 1878, train dispatcher on the Quebec, Montreal, Ottawa and Occidental Ry., now a section of the C.P.R.; subsequently to 1881 Dominion Telegraph Co. at Montreal; 1881 to 1883, Great Northwestern Telegraph Co. at Montreal; 1883 to 1889, in private employ; 1889 to 1899, electrician C.P.R. telegraphs; 1899 to 1903, Superintendent Eastern Division C.P.R. telegraphs.

W. Snider, who has been appointed Superintendent Atlantic Division C.P.R. Co.'s telegraph, was born in Halton County, Ont., July 14, 1854. He was educated at the grammar schools in Paris and Brantford, Ont., and learned telegraphy in the office of the Dominion Telegraph Co. at St. Catharines, Ont., in 1870. He was subsequently employed by the Dominion Telegraph Co. in Brantford, London, Toronto and Ottawa until 1877, when its lines were extended to the Maritime Provinces. Opened its office at St. John, N.B., in Oct., 1877, and was section manager for the Maritime provinces until the consolidation of that company with the Western Union Telegraph Co. in 1881. From Aug., 1881, to 1889 he was cashier of the St. John office of the Western Union, being appointed Manager of the St. John office of the C.P.R. telegraphs, then opened, and in 1890 was appointed circuit manager for the Maritime province district, and in charge of the maintenance of lines.

N. E. Brooks, who has been appointed Division Engineer Western division C.P.R. at Calgary, Alta., was born at Sherbrooke, Que., Dec. 25, 1866, and entered railway service in 1886, since which his record has been: May, 1886, to Mar., 1887, rodman Ontario and Quebec branch C.P.R.; May, 1887, to April, 1888, rodman Atlantic and Northwest branch C.P.R.; April, 1888, to Aug., 1889, resident engineer on construction Atlantic and Northwest branch C.P.R.; Aug., 1889, to Sept., 1890, resident engineer on construction Qu'Appelle, Long Lake and Saskatchewan Ry.; Sept., 1890, to Oct., 1891, resident engineer Calgary and Edmonton Ry.; Oct., 1891, to

to Sept., 1892, leveller Crow's Nest Pass line C.P.R.; Sept., 1892, to Dec., 1892, resident engineer on construction Crow's Nest Pass line C.P.R.; Dec., 1892, to Dec., 1895, assistant engineer of construction Montreal Street Ry.; Jan. 1, 1896, to Aug., 1903, Inspector Calgary and Edmonton Ry. and Qu'Appelle, Long Lake and Saskatchewan Ry.; Aug., 1903, to Nov., 1903, Superintendent Maintenance of Way and Structures Calgary and Edmonton Ry. He is a member of the Canadian Society of Civil Engineers.

C. E. Cartwright, who has been appointed Division Engineer Pacific division C.P.R. at Vancouver, was born at Toronto Oct. 14, 1864, but spent his earlier years at Kingston, Ont., and graduated at the Royal Military College there June, 1884. He entered railway service in 1883, his subsequent record being: 1883, chainman on location Great American and European Short Line, Nova Scotia; Oct., 1885, to July, 1888, location and construction Pontiac and Pacific Junction Ry. and Gatineau Valley Ry.; July, 1888, to Mar., 1890, draughtsman Norfolk and Carolina Ry. and in charge of survey for Belt Line Ry.,

Norfolk, Va.; Mar., 1890, to Nov., 1892, in private practice; Nov., 1892, to July, 1896, in charge of preparation of right of way maps and changes of grade and alignment for Division Engineer, Peoria division, Terre Haute and Indianapolis Rd.; Oct., 1896, to April, 1897, topographer and draughtsman through Adirondacks for New York and Ottawa Ry.; April, 1897, to Jan., 1899, assistant Chief Engineer New York and Ottawa Ry., Cornwall, Ont.; April, 1899, to Sept., 1899, resident engineer C.P.R. Kamloops and Laggan branches; Oct., 1899, to April, 1902, engineer of construction Vancouver and Lulu Island Ry.; April, 1902, to Oct., 1903, assistant to Division Engineer C.P.R. at Vancouver, B.C.

The Association of Railway Superintendents of Bridges and Buildings of America, held its annual convention recently in Quebec. About 120 members attended, and after completing the business of the meeting made a trip over the Intercolonial Ry.

The children's home on Berthelet st., Montreal, owned by the Ladies' Benevolent Society,

was recently burned, and C. M. Hays, 2nd Vice-President and General Manager G.T.R., has placed at the Society's disposal the old G.T.R. offices at Point St. Charles, pending rebuilding.

The accident bulletin published by the U.S. Interstate Commerce Commission shows that 64 passengers and 780 trainmen, etc., were killed in accidents during the three months ended June 30, bringing the total for the year up to 321 passengers and 3,233 employees, against 303 passengers and 2,819 employees killed in the year ended June 30, 1902.

The Westinghouse Air Brake Co.'s report for the year ended July 31, contains the following particulars: gross earnings, \$9,179,588; net earnings, \$3,719,080; dividends at the rate of 24%, \$2,636,748; surplus, \$1,082,337; against \$8,559,503 gross; \$2,928,696 net; \$2,634,468 dividends at 24%, and \$294,228 surplus for year ended July 31, 1902. In 1902-03 \$25,506 was charged for depreciation, and created a special depreciation reserve fund of \$300,000. The total surplus, July 31, 1903, was \$3,993,870.

Pintsch System Car and Buoy Lighting.

This Company controls in the United States and Canada the celebrated Pintsch System of Car and Buoy Lighting. It is economical, safe, efficient, and approved by the railway managers and Lighthouse Board of the United States, and has received the highest awards for excellence at the World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta and Buffalo. 120,000 cars, 5,000 Locomotives and 1,700 Buoys are equipped with this light. 170 Railroads in the United States, Canada and Mexico have adopted this system of lighting, applied on over 20,000 cars.

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There is being added this season to the railways entering Montreal a short but important piece of line, connecting with the Great Northern Ry. at Joliette and having a magnificent entrance into Montreal from the north through Maisonneuve and Hochelaga, with a fine terminal, now under construction, at the corner of Moreau and St. Catherine sts. The Chateauguay and Northern Ry., leaving Montreal, parallels the existing line of the Montreal Terminal (Electric) Ry. on a 40-ft. right of way secured from that company for a distance of about 12 miles to Bout de L'Isle, where the Terminal Ry. ends. Here the line curves to the right, leaving the Terminal line and then crossing it by means of an overhead crossing—a through girder span and concrete abutments over Park avenue—then crossing the Ottawa river, or as it is here called Rivière des Prairies, passes the village of Charlemagne and, turning north-east, runs in a straight line beside the L'Assomption river some seven miles to the town of L'Assomption. Here the line curves to the left and runs in a northwesterly direction for about $2\frac{1}{2}$ miles to where it crosses, nearly at right angles, the C.P.R. main line between Montreal and Quebec and, somewhat less than a quarter mile further on, the L'Achigan river; then, curving to the right, it passes the town of L'Epiphanie, and after crossing the St. Esprit river, runs in a direct line for about $6\frac{1}{2}$ miles to a crossing of the Lac Ouareau river, thence on another tangent of about $4\frac{1}{2}$ miles it connects with the Great Northern Ry. in the town of Joliette.

The country through which the line passes is a level agricultural district, well settled and prosperous, intersected by numerous streams and by a number of deep gullies running to the rivers, and all open, with the exception of some three or four miles between L'Epiphanie and Joliette. The profile shews a gradual rise in the direction of Joliette but with very easy gradients, the heaviest being 0.6 ft. per 100, the sharpest curve on the line being 2° .

From an engineering point of view the feature of the line is the number and cost of the bridges compared with the length of the line, there being over 3,400 ft. of steel bridging and trestling in the 36 miles, exclusive of permanent culverts and overhead road crossings. Taking the bridges in order from Montreal, the first is Bout de L'Isle bridge, a combined railway and highway bridge across the Ottawa river, which is divided into two channels by Isle Bourdon. The bridge crosses the first or west channel by 8 spans of 140 ft. each and one of 200 ft. in the centre, together with a short girder span of 46 ft. at each end to the shore abutments, making in all a length of 1,412 ft. The piers and abutments are of masonry on concrete foundations resting on piles. The bed of the river was found to be of very firm blue clay into which piles were driven about 2 ft. 9 in. apart; upon this concrete was deposited through the water in bottomless caissons to a level of 1 ft. below low water and well ripped, and the slopes of the embankments in front of the abutments also protected by hand-laid riprap. Upon the concrete foundations rests the masonry of grey limestone from the Terrebonne quarries. The piers in this channel are 30 ft. in height and are built with a batter of 1 in 24 on all sides, with a cutwater extending up about two-thirds of the height, and the down stream ends rounded, giving the whole a substantial and handsome appearance. The east channel is crossed by seven 140-ft. spans and two 76-ft. plate girder spans, making a total length of 1,132 feet. The piers in this channel are of the same design and material as those of the west channel, but are 2 ft. less in height, and as the water in this channel is much shallower than in the other, the contractors were enabled to cofferdam all the piers,

pump them out and deposit the concrete dry, the depth of concrete in the east channel being only 4 ft. against 16 to 21 ft. in the west channel. The superstructure for this bridge, as well as for the other bridges on the line, was supplied and erected by the Dominion Bridge Co. The 140-ft. spans are through trusses, with parallel top and bottom chords and inclined end posts, 5 panels each, the 200-ft. span at the centre of the west channel being higher at the centre of the truss. The railway, single track, is carried in the centre between the trusses, which are spaced 17 ft. 9 in. centre to centre of trusses, while the highway portion of the bridge consists of two roadways 10 ft. clear from truss to railing on each side of the bridge, carried on brackets outside of the trusses and with heavy latticed railings 4 ft. 10 in. in height, making altogether a very handsome and well-proportioned structure.

The next bridge is that over the L'Achigan river at L'Epiphanie, which consists of one 140 ft. deck truss span in the centre and two 50 ft. plate girder deck spans. The piers and abutments of this bridge are of concrete on bedrock, the piers in the river having a height of about 20 ft., the height of the truss bringing the track about 50 ft. above the bed of the river. The dimensions of the piers are 18 ft. in length with a width of 6 ft. at the top, and a batter of 1 in 24 ins. on all sides, and having rounded ends. The abutments are 20 ft. in width by 8 ft. at the bridge seat, and the slope of the embankment runs in front of them towards the piers. About a mile further on is the St. Esprit river bridge, which consists of one 75 ft. and two 30 ft. plate girder deck spans, the piers and abutments being of the same general design as those at L'Achigan and with rounded ends. The Lac Ouareau river bridge consists of one 140 ft. deck span crossing the main channel of the river, and a 50 ft. plate girder span at the easterly end with ten 30 ft. bents of steel trestle on concrete pedestals, ending with an abutment to hold the bank at the western end. The piers and abutments of this bridge are also of concrete and of the same general design as the others.

In addition to the above mentioned structures, there are a number of concrete arch culverts, 1 of 10 ft. span just outside of Montreal, and between Charlemagne and Joliette; 2 of 6 ft., 1 of 8 ft., 2 of 10 ft., 1 of 14 ft. skew arch, and at the Ruisseau Vacher a 25 ft. concrete arch culvert. The concrete is composed of one part cement, two of sand, and six of broken stone. Other small culverts are of open beam cedar.

The fencing is Page wire, with posts $16\frac{1}{2}$ ft. centres, 8 ft. long, standing $4\frac{1}{2}$ ft. above the ground.

The piling for the Bout de L'Isle bridge was done on the ice during last winter, and work on the concrete and masonry was commenced in April last. On Nov. 16 we were advised that the substructure for both channels was completed. A temporary trestle was erected across the east channel to facilitate construction, and trains have been run over it. The other bridges are completed, also all the concrete culverts with the exception of Ruisseau St. Pierre, which was expected to be completed by Oct. 31. The superstructure of the Bout de L'Isle bridge was begun in July, and is now completed across the west channel with the exception of flooring and railings. On Nov. 16 three spans of the superstructure over the east channel had been erected.

The grading, which has all been done this year, is practically completed, and tracklaying is now being vigorously pushed at three points, L'Epiphanie, Joliette and from Montreal. Out of 36 miles, all but $2\frac{1}{2}$ miles had been laid up to Nov. 25. The company has secured a convenient ballast pit near L'Assomption, where a steam shovel is at

work, and the track is being rapidly ballasted. The rails used are 70 lbs. per yard, and 33 ft. long, 4 bolt angle plates and ties laid 22 in. centres. Owing to the flatness of the country, material to make the heavy fills at the gullies before mentioned and at the approaches to the bridges was difficult to obtain, and in some places large areas of extra land had to be acquired from which to make the fills, notably across Isle Bourdon in the Ottawa river, where the dump is required not only for the railway but for a 14 ft. roadway on each side. These roadways, however, are carried down from the west channel on a 5% grade to the centre of the island and up again on the same grade to the east channel, and also at the east and west approaches on the main land. At the Bout de L'Isle, or west end of the bridge, a 3-posts temporary trestle has been erected over 1,000 ft. long, and another at the Charlemagne end, 1,460 ft. long, is under construction. These trestles will be filled in from the ballast pit by train. Fencing and telegraph line are well under way, and were expected to be completed by the end of Nov.

Stations are located at the following points with distances between as stated:—Charlemagne, 13.5 miles from Montreal; L'Assomption, 20.6 miles; L'Epiphanie, 23.7 miles; Ste. Marie Salomie, 29.3 miles; Joliette, 36.2 miles. At each station a passing siding is constructed 2,200 ft. long, the station and freight house being on the main track, with a 12 ft. platform about 200 ft. long, and a spur freight track running in behind the freight house. The design adopted for the passenger stations which are now under contract, shews a building $1\frac{1}{2}$ stories high, having a curved roof extending $7\frac{1}{2}$ ft. over the platform all around, and with flat-topped dormer windows, the whole appearance being attractive and picturesque. There are two sizes: the smaller, 24 ft. by 40 ft., and having on the ground floor general waiting room, agent's office, baggage and express room, with 4 living rooms upstairs; and the larger, 24 by 50 ft., having in addition a ladies' waiting room on the ground floor. With the exception of the one at Charlemagne, which is to be of brick, the buildings are of wood with shingle roof, and walls covered with American clapboards 3 in. to the weather. A water tank of 60,000 gallons capacity will be located at L'Epiphanie, and another at Montreal. The Montreal terminus is at the corner of St. Catherine and Moreau Sts., where a handsome station will be built, together with the requisite terminal facilities.

The engineering staff is as follows: F. A. Hibbard, late of the Michigan Central, Chief Engineer (to whom we are indebted for these particulars); C. E. Macnaughton, R. M. Charlton and J. O. Montreuil, Assistant Engineers in charge of three sections of the work; A. W. H. Stimpson, C.E. in charge of the draughting department at the office at Bout de L'Isle, with A. Langlois as assistant. D. J. Mullarkey is Chief Inspector.

The contractors for the greater part of the work, viz., substructure of bridges, grading, fencing, telegraph line and concrete culverts, Charlemagne to Joliette, are the F. C. Dunn & Co. J. B. Laflamme is their superintendent of works. In addition Isaac Kert has the contract for the fill on Isle Bourdon, and Schell, Bonneville and Purcell for the grading between Bout de L'Isle and Lasalle St. Maisonneuve. The balance of the work, wooden culverts, tracklaying and ballasting, is being done by the company under the superintendency of J. Rowley.

The company has every reason to be pleased with the excellent showing made in completing 36 miles of railway, with so many important and costly structures, in one season, and it is largely owing to the efforts of H. H. Melville, the Vice-President of the Company, that the work has been pushed in such a

short time to what is now practically successful completion. The immediate management of the work has been in the hands of J. P. Mullarkey, Managing Director. Dennis Murphy is President of the company.

It is expected that trains will be running from Joliette to Montreal early in December; the equipment to be supplied by the Great Northern Ry. of Canada, which has leased the line.

At the recent session of the Dominion Parliament the following subsidies were voted: From L'Epiphanie by way of St. Jacques l'Achigan to Rawdon village, 16 miles, \$51,200; an additional subsidy of \$50,000 towards the construction of the Bout de L'Isle bridge.

General Passenger and Ticket Agents' Association.

At the recent convention of the American Association of General Passenger and Ticket Agents, the auxiliary associations comprising general baggage agents, travelling passenger agents, and ticket agents were for the first time represented by delegates, as the result of a resolution proposed by G. T. Bell, General Passenger Agent of the G.T.R., and T. Henry, General Traffic Manager of the Richelieu & Ontario Navigation Co., at the Portland, Me., convention in 1902. The Canadian Ticket Agents' Association was represented by F. W. Churchill, C.P.R. ticket agent at Collingwood, Ont., who, in addressing the convention, said:

The Canadian Ticket Agents' Association is organized largely upon the same lines as the American Association of Travelling Passenger Agents, being educational and to an extent social. By the kindness of railways of our own country we have visited a number of prominent points in Canada. Last year through courtesies extended by the Lehigh Valley, Baltimore & Ohio, Philadelphia & Reading and other lines, we made our first trip to the U.S., thus becoming better acquainted with the junction points and with their various attractions. In no other way can a ticket agent, tied to his office, be enabled to so intelligently direct passengers as by travelling. I did not know until I came that a report was expected. We trust that you may do us the honor in future years of asking our Association to send a delegate to your meetings, and I can promise on their behalf that any delegate who may be appointed, will do his utmost to bring to the meeting something which may be of interest and instruction, and which may in some way increase the interest of your members. I thank you for the opportunity given by your Association to attend this meeting.

The Detroit and Toledo Shore Line Rd., (which is owned jointly, one half each, by the Grand Trunk Western Ry. Co. and the Toledo, St. Louis and Western Rd. Co.), owns, leases and controls a single track railway from a connection with the Detroit, Grand Haven and Milwaukee line of the G.T.R. at West Detroit, to Trenton, Mich., from which point to its connection with the Toledo Terminal Rd. at Toledo, it has a double track. Under a lease arrangement with the Toledo Terminal Rd. it reaches a connection with the Toledo, St. Louis and Western Rd. at Toledo. It has access, under running arrangements, to the Toledo, St. Louis and Western Rd. terminals at Toledo, and in like manner has access to the G.T.R. terminals at Detroit. The total mileage from West Detroit to Toledo is 67.70 miles. The road is laid with 70 lb. rails, well tied and well ballasted, with steel bridges and modern construction in every respect. It is now being operated for freight service only, but it is expected that passenger service will be put on early in 1904. The operation of the road is in charge of S. W. Knapp, Superintendent, with headquarters at Detroit, Mich.

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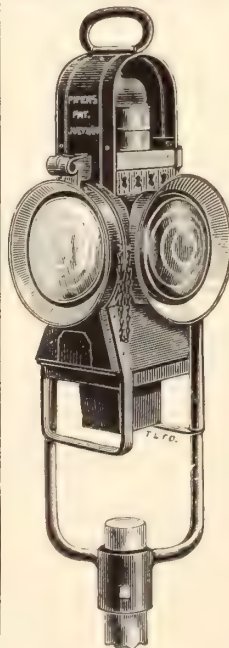
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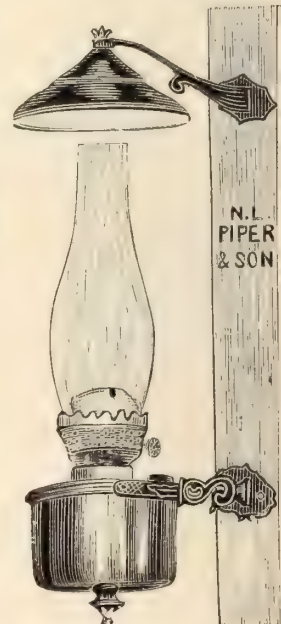
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G.T.R. Betterments, Construction, Etc.

Montreal Terminals.—On a portion of the land recently acquired in the vicinity of St. Henri and Turcot, Montreal, tracks to accommodate 2,000 cars being laid. This, however, is only preliminary to the work of laying out the new yards on the site. (Nov., pg. 387.)

Elevator at Montreal.—The foundations for the elevator to be erected at Windmill Point by the Montreal Warehousing Co., a subsidiary of the G.T.R., have been completed, and nothing more will be done until the spring. No contract has been let for the erection of the elevator.

Lacadie-St. John's Double-track. The second track between Lacadie and St. John's Que., 7 miles, has been completed, and a regular train service was placed in operation over it Nov. 16. (Sept., pg. 309.)

Toronto-Montreal Second Track.—The double-tracking and gradient reduction operations between Port Hope and Port Union were begun in the spring of 1901, and will be entirely completed this year. The line between the points mentioned runs practically parallel to the shore of Lake Ontario, crossing the valleys at almost right angles, and making a series of heavy ascending and descending gradients; the maximum being 1%. The new gradient over this section has been reduced, for eastbound traffic, to practically $\frac{1}{3}$ of 1%. To accomplish this the old track was lowered from 10 to 20 ft. at the summits and the fills raised a corresponding amount. Between Port Hope and Newtonville, a distance of eight miles, a new line to the north was chosen, eliminating several reverse curves, a 1% grade, and reducing the gradients (westbound) from 1% to 0.5%. A diversion was also made around the Darlington summit, which, although slightly increasing the curvature, decreased the maximum 1% gradient two-thirds. The grading consisting principally of hard clay with underlying layers of hard pan; and was handled very economically by steam shovels of $2\frac{1}{2}$ yard dipper capacity. Several smaller shovels were used in the light cuttings and in getting out ballast. The shovels working the cuts loaded the material on to flat cars, which were then moved to the fills and unloaded by ploughs operated by rapid unloaders. The cuts were sloped and excavated to the proper grade by the shovels, leaving very little trimming to be done by hand. The work, which presented no great difficulty, was accomplished with a very light hindrance to traffic, it being found desirable to maintain one track for main line trains, the work trains in all cases using separate tracks. As stated previously, the work will be completed this season, there being at present uncompleted a small amount of grading with about 10 miles of track to ballast. (Sept., pg. 309.)

Allandale Yards, Etc.—The new roundhouse, under construction at Allandale, Ont., will be of similar size to that recently completed at Fort Erie. It will be in the form of three-quarters of a circle, having a diameter of 330 ft., and a height of 25 ft.; with a depth of 80 ft. There are 27 stalls, which surround a turntable with a steel platform, 70 ft. in length. Adjoining is a machine shop, 50 ft. by 125 ft., having a smoke-stack, 75 ft. in height. There is also being built a store and office building, 115 ft. by 20 ft. The basement will be used for oil and other stores, and for records, while the master mechanic and his staff will have offices upstairs. These buildings are being constructed of concrete, the roof of the roundhouse and machine shop being of felt and gravel, and the office building of slate. (Nov., pg. 387.)

Toronto Yards.—Tracks are being laid in the new freight yards at Toronto, and the whole work is expected to be completed early in Dec. Work on the inward freight shed

will be gone on with in the spring. (Nov., pg. 387.)

Sarnia-Kingscourt Second Track.—The grading for the second track between Kingscourt Jct. and Sarnia, Ont., is completed, and it is expected to have the track laid and a train service in operation over the whole of this section by Dec. 31. The second track is already in operation between Kingscourt and Wyoming. (Nov., pg. 387.)

G.T. Pacific Ry.—We are advised that the surveys being made for the G.T.P.Ry. are under the charge of the following: Assistant Chief Engineer, J. R. Stephens, Montreal; Division engineers, G. A. Knowlton, North Bay, Ont.; G. A. Kyle, Winnipeg, Man., and C. C. VanArsdol, Victoria, B.C. The Railroad Gazette, New York, recently announced that E. R. McNeill, resident engineer of the Great Northern Ry., U.S., at Havre, Mont., had been appointed district engineer at Edmonton, Alta., but we are officially informed that he has been attached to the surveying staff in the vicinity of Edmonton. The Railway Age, Chicago, announced that E. P. Reynolds, Jr., of Wymore, Neb., had been appointed consulting engineer in charge of the location and construction of the G.T.P.R.; we have been officially advised that the G.T.R. management knows nothing of this appointment. We have been unable to obtain a complete list of the engineers employed on the 16 parties in the field, the personnel being so frequently changed, owing to illness, unfamiliarity with the country and other causes, that we are informed a satisfactory list would be very difficult to compile. The names of engineers are so frequently appearing in the press as being engaged on surveys for the G.T.P.Ry. that it would be interesting to have a complete and correct list. Among the names of engineers recently mentioned, in addition to those already referred to, are the following:—Pym, working in the vicinity of Lac du Bonnet; C. N. Bouchier, in charge of survey near Heron Bay, Ont.; L. J. Houston, formerly with the C.P.R. at Fort William, Ont., on survey north of Fort William; Meyer, on survey between Lake Nepigon and Frenchmen's Head; L. R. Ord, on survey from Frenchmen's Head, westerly; B. A. H. Lansberry, of New York, with party of 11, north of Yorkton, Assa.;—Armstrong, town engineer of Edmonton, Alta., on survey north, having obtained leave of absence from town council; A. F. Cotton, New Westminster, B.C., was on survey near Hazelton, B.C.

The Huntsville and Lake of Bays Ry. has purchased two saddle-tank engines, 14 box cars and 10 flat cars, formerly used by the E. B. Eddy Co. at Hull, Que.

The Intercolonial Ry. has received from the Toronto Industrial Exhibition Association a diploma awarded for a collection of photographs illustrating the route of the Maritime express, shown at this year's exhibition.

The G.T.R. between Oct. 23 and Nov. 23 added to its equipment seven switching engines, built at its Montreal shops; one switching engine, built at its Fort Gratiot, Mich., shops; and 12 cinder cars, built at its Port Huron, Mich., shops.

The B.C. Electric Ry. Co. has built at its New Westminster shops two double truck cars, 48 ft. bodies, for use on the interurban line between Vancouver and New Westminster, B.C.; and six single truck cars for use on its lines in Vancouver and Victoria.

The Canadian Northern Ry. has issued a new folder giving a short story of the commercial development of Northwest Canada. It is well written and profusely illustrated with cuts showing the early methods of transportation in the country, the public buildings of Winnipeg and other centres of population.

C.P.R. Betterments, Construction, Etc.

Megantic Line Improvements.—During the summer considerable work has been done on the line in the vicinity of Megantic, Que. A number of curves have been straightened, the roadbed raised, and widened in places, and a rock cut near Johnville blasted out. New steel has been laid from near Bulwer to a mile west of Cookshire, Que.

Megantic Yard.—The increasing freight passing over the line between Montreal and St. John, N.B., has led to a congestion at the freight yards at Megantic, Que., and it is reported that they will be enlarged to meet the increasing demands. Another press report states that consideration has been given to the question of removing the divisional point from Megantic to Holey.

Montreal Terminals.—In connection with the appropriation of \$4,500,000 for general improvements of terminals etc., a press report quotes Sir Thos. Shaughnessy as stating that a very considerable amount will be spent upon the terminals at Windsor st. station; that the purchase of land between the city and Montreal West had been going on steadily, and before long all the way out west there will be important extensions. First of all, there will be an increase of trackage; then there will be shunting grounds provided, sheds for reserve cars, and possibly another turntable. These improvements would take \$1,000,000 or more. (Oct., pg. 355.)

Montreal Shops.—The power house at the new shops, for which a permit was recently obtained, will be 164 ft. long by 60 ft. wide, and will cost \$40,000. (June, pg. 245.)

Northern Colonization Ry.—The distance from Labelle to Nominique, Que., is 25 miles, and track was laid to three miles beyond Labelle when work on the extension to Nominique was commenced, so that there remained 22 miles to be graded and completed. The grading was expected to be completed by Nov. 15, and tracklaying finished by Dec. 1. The grading has been a difficult work, there being a good deal of hard pan. There is not much bridge work on the extension. (Nov., pg. 385.)

St. Philippe d'Argenteuil to Brownsburg.—The Dominion Parliament at its last session voted a subsidy of \$3,200 a mile towards the construction of a line from the C.P.R., on the Montreal-Ottawa line, 49 miles from Montreal, northerly through the village of Brownsburg, Que., not exceeding three miles.

Ottawa, Northern and Western Ry.—The lines of the Ottawa, Northern and Western Ry., which include the old Ottawa and Gatineau Valley Ry., and the Pontiac Pacific Junction Ry., have been absorbed by the C.P.R., and are being operated as a portion of the Eastern division. In addition to securing the lines built and the charter rights of the two companies forming the O.N. and W. R. the C.P.R. also secured the Interprovincial bridge and the Hull Electric Ry.

At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted for one mile of railway completing the Company's connecting lines in the city of Hull, Que.; and for a line into and through Hull from the old Ottawa and Gatineau Ry., not exceeding 4 miles, in lieu of previous subsidies. A subsidy was also voted for a line from Waltham, Que., the present terminus of the old Pontiac Pacific Junction Ry., to Ferguson Point, about 20 miles. The first two mentioned of these lines have been constructed and are in operation, and provision is made in the charter of the old P.P.J. Ry. Co., for the extension from Waltham.

The extension of the old Ottawa and Gatineau Ry. from Gracefield to Maniwaki is practically completed, construction trains having been running into Maniwaki since early in Nov. (Oct., pg. 145.)

Ontario Lines.—At a meeting recently held at Bowmanville, Ont., at which representatives from Whitby, Oshawa, Port Hope, Cobourg and Campbellford were present, a resolution was passed favoring the construction of a line connecting the lake front towns with the C.P.R. main line. A committee was appointed to interview the C.P.R. officials with a view to diverting the main line or constructing a loop line by which these various towns could be brought into connection with the C.P.R. In this connection a press report states that the C.P.R. has in contemplation the construction of a line from Blairton to Toronto, via Warkworth, Cobourg, Port Hope, Bowmanville, Oshawa and Whitby. This line would serve the district represented by those present at the meeting, and could open up a portion of the country not now served by a railway. A press report states that the C.P.R. has on paper plans for the extension of its lines in Ontario, with the idea of getting into all districts likely to develop, and from which remunerative traffic may be expected. These lines are in addition to the Lindsay, Bobcaygeon and Pontypool Ry., of which the C.P.R. has a lease; and the proposed extension of the Guelph Junction Ry. to Goderich, for which surveys are in progress.

North Bay Yards, Etc.—The old station has been moved into line with the new station building, and a new track laid alongside. The new platform was ready for use early in Nov. (Nov., pg. 385.)

Grain Loading Platforms, Etc.—During the season 33 grain-loading platforms have been completed at various points in Manitoba and the Northwest Territories.

Pipestone Branch.—We were advised, Nov. 12, that 42 miles of track had been laid

easterly from Regina on the extension of this branch from Arcola to Regina, Assa. (Nov., pg. 385.)

Carberry to Neepawa.—C.P.R. engineers are reported to be at work locating a line between Carberry and Neepawa, about 25 miles.

Pheasant Hills Branch.—We were advised Nov. 12 that track had been laid to mileage 107.5 from Kirkella, and it is expected to lay track to mileage 130, near Balcarres. (Nov., pg. 385.)

Trail Loop.—A contract is reported let to W. P. Tierney & Co., Nelson, B.C., for the construction of a loop line, about $1\frac{1}{4}$ miles, to connect the Rossland Power Co.'s mill near Trail, B.C., with the main line.

Vancouver Hotel.—Construction of the new wing for the Hotel Vancouver will, it is said, be gone on with in the spring. This wing will replace the old building. (Feb., pg. 53.)

Victoria Hotel.—F. M. Rattenbury has prepared plans for the proposed new hotel at Victoria, B.C., which he recently submitted to the executive. He will go to Europe to look over some of the big new hotels there before returning to Vancouver. (Oct., pg. 355.)

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Upon the extension from Glenwood, Minn., northerly, about 25 miles are reported to be in operation, and the construction gangs have reached a point 75 miles further north. (Oct., pg. 355.)

C. M. Hays, 2nd Vice-President and General Manager G.T.R., left Montreal Nov. 25 for London, Eng., in connection with G.T. Pacific Ry. business.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Atlantic, Quebec and Western Ry.—At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile, with the usual provisions for increasing it to \$6,400 a mile, was voted towards the construction of a line from Gaspe to Causapsal, Que., on the Intercolonial Ry.; from Causapsal to Edmundston, N.B., 260 miles, and from Gaspe along the shore to Paspebiac, the present terminal of the Atlantic and Lake Superior Ry., 102 miles. In the winter of 1902-3 preliminary surveys were made between Amqui station on the I.C.R. and Gaspe, 180 miles, a good route being found with easy gradients. During the recent summer the preliminary survey was made on the proposed branch from Gaspe to Paspebiac. After the voting of the subsidy a survey party was sent out to make the final survey of the first section of the route from Paspebiac, and arrangements have been completed to send out two additional parties to survey additional sections. It is desired to have the surveys completed so as to let contracts for 30 miles before spring. The company hopes to be able to complete the line from Amqui to Gaspe, and from Gaspe to Paspebiac, Que., within three years. The cost of construction is estimated to exceed \$15,000 a mile. J. X. Lavoie, Perce, Gaspe, Que., is Secretary. (Oct., pg. 339.)

Bay of Quinte Ry.—At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted towards the construction of an extension from the present terminus at Tweed to Actinolite (Bridgewater), Ont., and to Marmora township, about 20

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miles. Tracklaying has been completed on the extension from Tweed to Bannockburn, where a connection has been made with the Central Ontario Ry. The extension starts from a point near the engine shed at Tweed, crosses the C.P.R. track and River st., and parallels that line for some distance, then turning northerly to Actinolite (Bridgewater), then northwesterly to Bannockburn. Temporary wooden bridges have been erected, four of which are to be replaced by steel spans. There will be three stations on the extension, Bridgewater, Queensboro and Allen Settlement. Ballasting is in progress. (Oct., pg. 339.)

Beersville Coal and Ry. Co.—The Dominion Parliament at its recent session voted a subsidy of \$3,200 a mile towards the construction of this line from Adamsville on the I.C.R., to the coal mines at Beersville, N.B., seven miles. Track is reported to have been laid for three miles from Adamsville, and grading to have been completed for six miles. Grading on the remaining mile to the mines is in progress and tracklaying is being continued. It is expected to complete tracklaying by the end of the year. Arrangements are being made to put in terminal facilities at the mines, but it is not expected that anything will be done in that direction until the spring. The New Brunswick Government is negotiating with the company with a view of providing for the construction of a further 2½ miles of line to the mines of the Canadian Manganese Co. G. G. Polleys, Manager of the Imperial Coal Co., is also manager of the railway. (Oct., pg. 339.)

Berlin, Waterloo, Wellesley and Lake Huron Ry. (Electric).—The promoters, in company with an engineer from Boston, Mass., have recently been looking over the route of this projected line from Berlin to Goderich, Ont., via Wellesley. It is said that it is intended to construct a line from Berlin to Wellesley, about 15 miles, immediately, and to operate it in conjunction with the Preston and Berlin Ry. and the Galt, Preston and Hespeler Ry. C. R. Hanning, Preston, Ont., is Secretary. (Sept., pg. 305.)

Brockville, Westport and Northwestern Ry.—The opposition to the passing of the act incorporating the Reorganization Syndicate of New York, which purchased the Brockville, Westport and Sault Ste. Marie Ry., was withdrawn, the syndicate agreeing to pay 25% of the amount due to the judgment creditors. The act was then passed, the name of the company being changed to the Brockville, Westport and Northwestern Ry. Co., and power given to extend the line from Westport northwesterly. The B. W. and S. S. M. Ry. is now vested in the B. W. and N. Ry. Co., and at the meeting for the organization of the new company held Nov. 23, it was decided to bring the line in all respects up to the Government standard, and the officers were given instructions to this effect. A committee was appointed to select a terminal for the projected extension and to make arrangements for the preliminary surveys. (Oct., pg. 340.)

Bruce Mines and Algoma Ry.—A subsidy was voted at the recent session of the Dominion Parliament for an extension of the line from its present terminal at the Rock Lake copper mines, Ont., northerly 19 miles, and for a line from Bruce Mines to Bruce Mines Junction, 2 miles. The latter piece of line has already been constructed. It is not expected that anything will be done on the line northerly next year. (Sept., pg. 305.)

Chateauguay and Northern Ry.—See pg. 419.

Central Ontario Ry.—The subsidy previously authorized by the Dominion Parliament for the extension of this line from Bancroft to a junction with the Canada Atlantic

Ry. near Whitby, Ont., about 40 miles, was revoked at the recent session.

Colchester Coal and Ry. Co.—At the last session of the Dominion Parliament a subsidy of \$3,200 a mile was voted towards the construction of a line from Debert station on the I.C.R. to the Debert Coal Mines, N.S., 4½ miles, for the construction of which the C.C. and Ry. Co. has a charter. This subsidy was granted in lieu of one voted in 1900. (Oct., pg. 341.)

Cumberland Ry. and Coal Co.—At the last session of the Dominion Parliament a subsidy of \$3,200 was voted for the construction of one mile of railway from Parrsboro, N.S., station to riverside wharf. (Feb., pg. 39.)

Detroit River Bridge.—In connection with the proposal to construct a bridge over the Detroit river between Windsor, Ont., and Detroit, Mich., which was under discussion a good deal in the early part of the year, and to which special attention was directed by the securing of a charter by the Pere Marquette Rd., C. M. Hays, 2nd Vice-President and General Manager G.T.R., recently stated that he was collecting information on the subject, but was as yet unable to state what attitude his company would assume toward the subject. Sir Thos. Shaughnessy, President C.P.R., interviewed by the Montreal Star on the subject, said that it was a matter mainly interesting to Canadian connections with the U.S. (Aug., pg. 267.)

Edmonton Street Ry.—W. G. Tretheway, of Montreal, has been visiting Edmonton, Alta., recently, and interviewing the town council in connection with the construction of a street railway there. A charter for the construction of an electric railway is held by the town council. (June, pg. 213.)

Eskimout and Nanaimo Ry.—At the last session of the Dominion Parliament a subsidy of \$3,200 a mile, with the usual conditions as to an increase to \$6,400 a mile, was voted towards the construction of a line from Wellington to Union bay, about 50 miles. A charter for the construction of this line is held by the E. and N. Ry. Co., and surveys have been made for a line along the coast terminating at Comox. The B.C. Legislature voted a subsidy of \$4,000 towards the construction of such a line, but provided that it should run through Alberni and Nanaimo. Nothing was done to earn the subsidy, which has now lapsed. (Jan., pg. 21.)

Grand Valley Ry. (Electric).—Grading has been completed to within four miles of St. George, Ont., and tracklaying is in progress from Paris to St. George. Negotiations are in progress for the extension of the line to Galt. (Oct., pg. 341.)

Great Northern Ry. of Canada.—Nothing definite has been announced in regard to construction of the connection between the Montford and Gatineau Ry., at either St. Sauveur or St. Morin flats, and the G.N.R. at St. Jerome, Que., about 20 miles. (See Montford and Gatineau Ry.)

The Dominion Parliament at its last session voted the usual subsidy of \$3,200 a mile towards the construction of a line from Hawkesbury to South Indian, Ont., not exceeding 35 miles, in lieu of a subsidy granted in 1899, and for a line from Garneau Jct. to Quebec bridge, not exceeding 70 miles. Surveys were made in 1901 for the proposed extension from Hawkesbury to South Indian, and for a cut off from Garneau Junction to St. Catharines, Que., 55 miles. No work was done on either of these pieces of line. The new subsidy for the line from Garneau is for an extension into Quebec, thus providing a direct entrance into that city for the G.N. Ry. independent of the Quebec and Lake St. John Ry., which is now utilized from Rivière à Pierre to Quebec. (Sept., 1901, pg. 335.)

Guelph Junction Ry.—This railway is at present in operation from Guelph to Guelph Junction, Ont., where connection is made with the C.P.R. main line, 15 miles. The line is operated by the C.P.R. and it was always intended that it would be extended to Goderich, and negotiations to that end have been initiated by the Guelph city council, which has a large interest in the line. Surveys for the extension are now in progress; P. A. Peterson, formerly Chief Engineer C.P.R., being in charge of the work; the engineers in charge of the survey parties being:—Roberts, at Goderich, and J. Davis, at Guelph. Three lines have been run between the two points, but the final route has not been settled. The lines surveyed are: (1) from Guelph via Elmira, Linwood, Milverton, Monkton, Walton, Blyth, to Goderich; (2) Guelph via Conestogo, Linwood, Atwood, Brussels and Listowel, to Goderich; (3) the third route would run into Goderich via Seaforth and Clinton. The construction is comparatively easy between Guelph township and Blyth. The distance of the proposed line will be about 82 miles, as against 88 via the G.T.R. It is probable that legislation will be asked to change the name of the Company to the Guelph and Goderich Ry. It is expected that work will be gone on with in the spring, as C.P.R. assistance has practically been secured by the promoters. Colonel A. H. Macdonald, Guelph, is solicitor for the Company. (Oct., pg. 341.)

Halifax and Southwestern Ry.—We are advised that the location of the line at several points is still undecided, and no further contracts have been let for grading. The line between Halifax and Mahone, N.S., has been graded and the bridges and culverts, with the exception of the steel spans, delivery of which depends on the makers, are well under way and will be ready for tracklaying for about 50 miles by the end of Nov. From this point into Halifax the grading and culverts have been about one-third finished and are being pushed forward. On Nov. 16 we were advised that tracklaying was expected to be commenced at Mahone in a few days. All the track material and telegraph posts are provided, so that the work will be pushed forward to Halifax as fast as possible. Work on the line in the vicinity of Liverpool is also making good progress. In connection with the entrance into Halifax, the arbitrators have been appointed to assess the value of the land to be purchased by the city and county for the right-of-way.

On the old Nova Scotia Southern Ry. the Caledonia branch has been completed, and we were advised Nov. 16 that it was expected to be opened for traffic by Nov. 20. The branch extends from New Germany to Caledonia, about 22 miles. On this branch considerable work was done some years ago, but the whole has been entirely reconstructed. Stations have been built at Hemford, North Brookfield, South Brookfield and New Caledonia; a water tank at Hemford, and an engine and coal shed at Caledonia. (Nov., pg. 389.)

Hampton and St. Martin's Ry.—A train service has been placed in operation on this line by the new company, and freight is being exchanged with the I.C.R. (Oct., pg. 341.)

Huntsville and Lake of Bays Ry.—The grading on the mile of railway being constructed under this charter by the Huntsville, Lake of Bays and Lake Simcoe Navigation Co., between Lake of Bays and Peninsula lake, Ont., is nearly completed, and tracklaying will be commenced at once if the weather continues favorable. It is expected that a train will be running within three weeks after tracklaying has commenced. Steel rails 56 lbs. to the yard will be laid. Professor Kerry, of McGill College, laid out

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the route, assisted by —. Bazette, of Burk's Falls, Ont. (Aug., pg. 268.)

Indian River Ry.—At the last session of the Dominion Parliament a subsidy at the rate of \$3,200 a mile was voted for a line from the north end of Lake Megantic south-erly to the International Boundary, about 19 miles. A company with this title was incor-porated by the Dominion Parliament in 1902, to construct a railway from the north end of Lake Megantic along the lake to the Inter-national Boundary at Riviere Morte. Power was given the Company to enter into arrange-ments with the C.P.R. and the Quebec Cen-tral Ry. in Canada, and with the Rumford Falls and Rangeley Lakes Ry. and the Port-land and Rumford Falls Ry. in the U.S. M. P. Davis, contractor, Ottawa, and H. G. Harrison, Montreal, were among the incor-porators. (June, 1902, pg. 191.)

Intercolonial Ry.—The grading for the second track between Richmond and Rock-ingham, N.S., 2.45 miles, has been complet-ed, and tracklaying is nearly finished. It is expected that the second track will be plac-ed in operation early in Dec.

Tenders are under consideration for some improvements at the deep-water terminus, Halifax, including submarine blasting and dredging at the dock between piers 3 and 4.

A sum of \$10,000 was provided in the sup-plemental estimates, at the recent session of the Dominion Parliament, for a new station at Windsor, N.S.

The new roundhouse at St. John, N.B., has been completed, and the tracks leading to it are being laid. The new building is semi-circular in form, with an inside diameter of 344 ft. and a height of 23 ft. It will accom-modate 18 locomotives, and is built of brick on concrete foundations, resting on piles. The roof is supported on 45 iron columns. Ad-joining is the machine shop, 50 ft. by 100 ft.; and a steel water tank having a capacity of 100,000 gals. The contractors were Flood and Bates, St. John. (Oct., pg. 342.)

International Ry. of New Brunswick.—The I.Ry. of N.B. is a new name for the Res-tigouche and Western Ry. At the recent session of the Dominion Parliament a subsidy of \$3,200 a mile was revoked from the western end of the 10 miles completed from Campbel-lyon towards the St. John river, between Grand Falls and Edmundston, N.B., about 67 miles, and a new subsidy for a further distance of 33 miles, making in all 100 miles. T. Malcolm, of Edmundston, N.B., is the principal pro-moter. (See Restigouche and Western Ry., July, pg. 241.)

Interprovincial and James Bay Ry.—A subsidy of \$3,200 a mile, with the usual pro- vision for an increase to \$6,400 a mile, was voted at the recent session of the Dominion Parliament for a line from the C.P.R. Temis-camingue branch from Mattawa, at or near its present terminal at Temiscamingue wharf, northerly not to exceed 50 miles. The I. and J.B. Ry. Co. was incorporated by the Domi-nion Parliament in 1901, amongst the promo- ters being Hon. R. Prefontaine, L. J. Tarte and J. W. Poupore, of Montreal. (July, pg. 236.)

Inverness Ry. and Coal Co.—At the recent session of the Dominion Parliament a subsidy at the rate of \$3,200 a mile was voted for 8 miles of line between Point Tupper and Broad Cove, N.S. This piece of line has been com- pleted and is in operation, but was not cover- ed by the previous subsidies. A subsidy at the same rate for an extension of the line from near Broad Cove to Cheticamp, about 37 miles, was also revoked. (May, pg. 149.)

Irondale, Bancroft and Ottawa Ry.—The Dominion Parliament at the recent session granted a subsidy of \$3,200 a mile towards the extension of this line from its present terminus near Bancroft to Renfrew, Ont., about 75 miles. (June, pg. 215.)

Joliette and Lake Manuan Colonization Ry.—A subsidy of \$3,200 a mile was voted at the recent session of the Dominion Parliament for the construction of about 60 miles of rail- way from Joliette to Lake Manuan, Que., in place of a subsidy voted in 1900. At the re- cent session the Dominion Parliament passed an act incorporating a company with this title to construct a railway from Joliette to Lake Manuan, Que., with local incorporators. It has power to lease or sell its line to the C.P.R., the Great Northern Ry., or the Montreal Terminal Ry. (July, pg. 336.)

Kettle Valley Lines.—Subsidies were vot- ed at the last session of the Dominion Parlia- ment for a line from Grand Forks, up the north fork, and west fork of the north fork of Kettle river, B.C., 50 miles. The Kettle Val- ley Lines are in operation from Grand Forks, B.C., to Republic, Wash., and the proposed extension will open up a considerable mining country to the north of Grand Forks. The objective point of the extension is Franklin camp. It is expected that construction will be commenced early in the spring. Hon. J. R. Stratton, Provincial Secretary of Ontario, is President of the K.V. Lines, and H. War- rington, Grand Forks, B.C., is Superintend- ent. (Sept., pg. 307.)

Kootenay Central Ry.—At the recent ses- sion of the Dominion Parliament a subsidy of \$3,200 a mile, with the usual conditions for an increase to \$6,400 a mile, was voted towards the construction of a line from Golden, B.C., to the International Boundary via Windermere and Fort Steele, and crossing the C.P.R. Crow's Nest Pass line at or near Elkos, not exceeding 106 miles. C. H. Pollen, of Fort Steele, B.C., is the principal promoter of the company, which has both B.C. and Dominion charters. Surveys for the line have been completed. (July, pg. 237.)

Lime Ridge to Quebec Bridge.—At the re- cent session of the Dominion Parliament a subsidy of \$3,200 a mile was voted towards the construction of a railway from Lime Ridge, the present terminal of the Hereford Ry., northerly for 50 miles into the county of Megantic, Que., being a revote of a subsidy granted in 1894. A subsidy at the same rate was also voted for a line in extension of the 50 miles from Lime Ridge for 30 miles to the Quebec Bridge. The Lotbiniere and Megan- tic Ry. was at the last session of the Quebec Legislature given power to construct a line from Kinnear's Mills to Windsor Mills and Brompton Falls, via Lime Ridge. This line would cover the mileage subsidized, and an additional distance from Lime Ridge to Brompton Falls, on the G.T.R., 94 miles from Montreal. (See Lotbiniere and Megantic Ry., May, pg. 149.)

Lake Superior, Long Lake and Albany River Ry.—The Dominion Government at its last session voted a subsidy of \$3,200 a mile towards the construction of this railway from Peninsula Harbor, on Lake Superior, norther- ly for 10 miles. (June, pg. 215.)

Montford and Gatineau Colonization Ry.—At the last session of the Dominion Parlia- ment a subsidy of \$3,200 a mile was voted for an extension of the line from Arundel to the united townships of Preston and Hart- well, Que., about 30 miles. A subsidy at the same rate was also voted for an extension from Morin Flats to St. Jerome, about 26 miles, to connect with the Great Northern Ry. of Canada. (See also Great Northern Ry. of Canada.)

Nepigon Ry.—The Dominion Parliament at its recent session voted a subsidy of \$3,200 a mile towards the construction of 80 miles of railway from Nepigon on Lake Superior to Nepigon lake and northerly. A contract was recently reported let to J. Connée, M.L.A., for the construction of this line. The

Ontario Government has also voted subsidies for a portion of the line. (Oct., pg. 343.)

The Strathroy and Western Counties Ry. Co. was incorporated by an act of the On- tario Legislature in 1893, and an act amend- ing the same was passed in 1897. It was empowered to construct a railway from St. Thomas through the counties of Elgin and Middlesex to Forest or Park Hill on the G.T. R., and subsidies were voted by the Dominion Parliament in 1894 and 1897, but no work has been done. At the recent session of the Do- minion Parliament a subsidy was voted for 31 miles of railway from Lambeth to Strathroy, via Mount Brydges and Caradoc.

Sydney and Glace Bay Ry.—This com- pany has 22 miles of electric railway in op- eration. It has eight interurban cars equipped with four no. 67 motors, and two single truck cars equipped with two no. 67 motors. (Oct., pg. 345.)

Yonge St. Bridge, Toronto.—Plans for the construction of a bridge across the tracks at Yonge st. have been forwarded by the city council to the Railway Committee of the Privy Council for approval. It is understood that the G.T.R. and the C.P.R. will appeal to the Government against the decision to make them pay the whole cost of the bridge. (Nov., pg. 387.)

Quebec Bridge and Railway Co.

The report of the directors presented at the annual meeting, held in Quebec Oct. 30, stated that a contract had been signed the previous day in Ottawa between the Dominion Government and the company, respecting future subsidies towards the completion of the bridge and railways. A summary of the principal features of the contract is published on another page. The report of E. A. Hoare, Chief Engineer, which follows, was appended: At the date of my last report the construc- tion works for piers on the south side, and the steel approach span on the north side of the river were in progress. The former were completed last autumn, the pier in the river being the last on account of the extra sinking required to obtain a sufficient depth of founda- tion, which was accomplished at 85 ft. below high water and 57 ft. below the river bed at the pier site. Riveting and painting the steel approach span on north side was continued last June; the erection of metal on the south approach, however, was only commenced this year, and not as at first intended at the end of last season. The latter has been com- pleted in Sept. last. Designs for the main structure are progressing, and preparations are being made at Phoenixville, Pa., for the instalment of special machinery for the manu- facture of the metal for the main and anchor spans, which will be followed by preparations for the instalment of the erection plant at the bridge site. Progress has also been made with surveys and plans for connecting the bridge with railways on both sides of the St. Lawrence river and the city of Quebec.

The report was adopted, as also were reso- lutions thanking the President for his con- duct of the negotiations leading up to the signing of the new contract.

The following were elected officers and directors: President, Hon. S. N. Parent; Vice-Presidents, R. Audette, J. Breakey; other directors: V. Boswell, Hon. N. Gar- neau, J. B. Laliberte, G. Lemoine, H. M. Price, and N. Rioux. Secretary, U. Barthe.

A boiler on the Dominion Government hy- draulic suction dredge J. Israel Tarte explod- ed Nov. 3, killing one man and injuring sev- eral others. The dredge was at work on the deepening of the channel of the St. Lawrence at Lake St. Peter at the time of the accident, and was towed to Sorel for repairs.

Grain Elevator Notes.

The Crown Elevator Co. proposes to construct a large storage and cleaning elevator at St. Boniface, Man., at a cost of \$150,000.

The new steel tank elevator "E" at Fort William, Ont., has been taken over by the C.P.R. It will be operated as an annex to elevator "B."

The Winnipeg Grain Exchange has been informed that the C.P.R. insurance on grain at Fort William, Ont., covers grain both on the track and in the elevators.

The Montreal Harbor Commissioners are considering the question of erecting a second marine leg to the elevator, nearly completed at the harbor, at a cost of \$30,000.

We are officially informed that there is no truth whatever in the report that the Canada

Atlantic Ry. contemplates building another elevator at Depot Harbor, Ont., this season.

The Monteith Junction Elevator Co. (Ltd.) has been incorporated under the Manitoba Companies' Act, with a capital of \$15,000 to carry on an elevator business at Souris and

Monteith Junction, Man. T. Lockhart, W. C. McLaren, A. Wood, J. H. Cook, R. Smith, H. McLean and J. S. Grant, Souris, are the incorporators.

The movement of grain to the head of the lakes this season is slower than last year, the

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Sailing from Philadelphia on Saturdays.

Atlantic Transport Line.

NEW YORK—LONDON.

Sailing from New York on Saturdays.

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BOSTON—LIVERPOOL.

Sailing from Boston on Saturdays.

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Passenger Agent for Ontario,
41 King St. East, Toronto.

The Victoria Rolling Stock Company of Ontario, Limited.

NOTICE is hereby given that a dividend of six per cent. on the paid up capital stock of the company for the half year ending 30th November, 1903, has been declared payable 1st December next to shareholders on record as on the 30th of November, 1903.

By order of the Board,

R. A. SMITH,
Secretary.

THE ST. THOMAS BRASS COMPANY, Ltd.

MANUFACTURERS OF

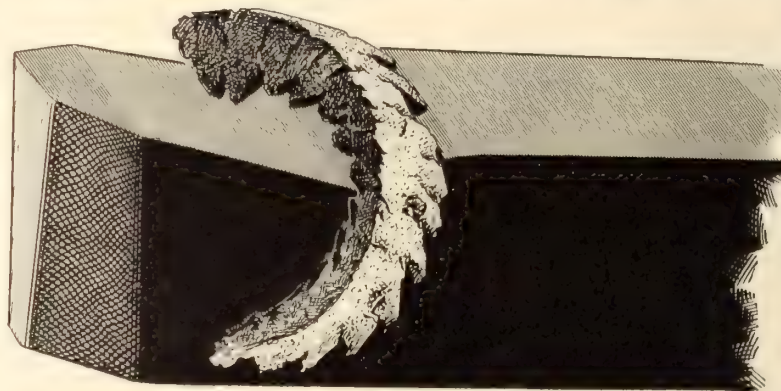
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receipts to the end of Oct. at the elevators being 8,700,000 bush. against 13,000,000 bush. in 1902.

The Intercolonial Ry. elevator at Halifax, N.S., was placed in operation in Nov., after lying idle for six years, and will be utilized all winter, vessels belonging to four lines of steamers having arranged to take cargoes of grain there.

The Point Edward Elevator Co.'s new elevator is situated on the St. Clair river and adjoining the G.T.R. at Point Edward, Ont. The foundations consist of 62 stone piers resting on heavy oak piles cut off at the water level and capped with oak timbers. The working house is 48 ft. square and 142 ft. in height. There is storage room here for 80,000 bush. in small bins. The basement is 6 ft. 6 in. high, and has a concrete floor on which the elevator boots and legs rest, the legs themselves being 140 ft. long. The bins in this part of the elevator are 52 ft. high and are made of 2 x 8 and 2 x 6 pine and hemlock planks, in what is known as a laminated structure, being spiked one to the other, and the planks of each sectional wall of the bins crossing alternately that of the other. The marine leg is entirely of steel. It is 65 ft. long and has a capacity of 12,000 to 15,000 bush. of wheat per hour. The elevator legs discharge into the scale hoppers, the grain being weighed on scales with capacity of 72,000 lbs. each. After the grain is weighed it is dropped upon belts and conveyed to the storage bins in the main building, the belts running at a speed of about 900 ft. per minute. The main storage section of the elevator is 66 x 126 ft. and 75 ft. deep, containing 36 bins with capacities of 10,000 and 15,000 bush. each. These discharge upon conveyor belts, which run through tunnels into the working house to the receiving legs, and grain goes through the same operation of weighing before being loaded. After being weighed in carload lots it is spouted direct from the scales to the cars; and it is possible to load 1,000 bush. of wheat in about 3¼ minutes. Two special tracks have been put in by the G.T.R. for the use of the elevator. Two sets of power unloading shovels are used for unloading the grain from the boats. The elevator is also equipped with its own electric light service, comprising 15 incandescent and 6 arc lights, also a fire pump with a capacity of 750 gallons of water per minute and at suitable distances there are stands of rubber fire hose ready for use. In the power building is a 350-h.p. engine, together with condenser, feed pump and all usual connections. Steam is furnished by two return tubular boilers 16 ft. long and 6 ft. in diameter, rigged to be run independently or together. The transmission of power through the elevator is by rope transmission.—American Elevator and Grain Trade.

At the last session of the Dominion Parliament an act was passed giving the Exchequer Court jurisdiction over railways not wholly within one province, concurrently with that of any provincial court, for the purpose of ordering the sale of any railway, or the ordering of foreclosure at the instance of the mortgagees. The court may appoint a receiver for the line, whose duty it shall be to take possession of the line and operate it, and complete the railway if incomplete on order of the court. Sec. 6 states that a railway company is insolvent within the meaning of the act in all cases which constitute insolvency under the Winding Up Act, except that par. 8, sec. 5, shall not apply to railways which have been taken possession of by the bondholders. This act does not apply to, nor authorize proceedings against the Central Ontario Ry., nor effect any proceedings pending in connection with that company.

SHIPPING MATTERS.

Navigation in Temiskaming District.

The increasing number of settlers who have gone into the Temiskaming country, particularly on the Ontario side of the lake, and the increasing number of tourists who visit the Kippawa lakes, on the Quebec side, and the Montreal river route to Temagami lake, on the Ontario side, has directed some extra attention to the navigation of this section of the Ottawa river. For many years, when lumbering was the sole traffic along the river, Mattawa, Ont., was the point of departure for the Upper Ottawa, and a tramway was constructed for some miles along the Quebec bank of the river to aid steamers getting up the rapids. The ruins of this tramway are to be seen in places, between the railway and the river. The point at which all steamers now receive and discharge freight and passengers is at Temiscamingue, Que., 59 miles by rail from Mattawa, and at a point where lake Temiskaming has reached its narrowest point, and discharges its waters into the Ottawa river. The river expands into a lake when near the point where the Opemican river, which drains the Kippawa lakes, joins the Ottawa; and a few miles south of Haileybury, Ont., the Montreal river, draining the Temagami country, falls into the Ottawa through a narrow gorge. Between Temiscamingue and Haileybury there are several wharves on both sides of the river; the most important being at Baie des Pères, Villa Marie, Que., and Old Fort, Ont. At Haileybury a wharf is being constructed well out into the lake, which is about 10 miles wide near here. A considerable settlement has sprung up at Haileybury, which will be one of the stations on the Temiskaming and Northern Ontario Ry. At present it is the starting point for the Temagami country, but as the new railway from North Bay will touch the lake itself, a good deal of that trade will be diverted. About eight miles north is New Liskeard, which is a flourishing town and the centre of a very large settlement, the area covered extending nearly 40 miles north and 20 miles west. At New Liskeard a channel was dredged in the spring 11 ft. deep, a dredge being constructed on the river for that purpose. The channel is at present rather narrow, but this will be remedied another year; it is temporarily lighted pending completion. From New Liskeard there is also navigation to the White river, which forms the boundary between the two provinces, and up the river to Tomstown, about 40 miles. There are thus about 120 miles of navigation on the main waters of the Ottawa, on lake Temiskaming and White river. The pioneer of navigation was A. Lumsden, of Ottawa, who is an extensive lumberman both in Quebec and Ontario. Up to a couple of years ago the Lumsden boats did all the trade. They included four passenger and freight steamers, one freight steamer, six tugs and "alligators," besides a number of tow barges. One of the passenger steamers—the Comet—was burned in the fall of 1902, but will be rebuilt at Temiscamingue, where Mr. Lumsden has a repairing shed, etc. A list of the vessels owned by Mr. Lumsden on Lake Temiskaming follows:

Argo, sidewheel steamer, built on Temiskaming lake, 1882; length, 125 ft.; breadth, 39.4 ft.; depth, 8.4 ft.; tonnage—gross, 154.06 tons; net, 96 tons; licensed to carry 40 passengers.

Clyde, screw steamer, built at Baie des Pères, Que., 1888; length, 61.5 ft.; breadth, 13.5 ft.; depth, 3.4 ft.; tonnage—gross, 29 tons; net, 26 tons; licensed to carry 25 passengers.

Comet, screw steamer, 144.42 tons gross, on Lake Temiskaming, and licensed to carry 50 passengers; is mentioned in the report of

the Department of Marine, but does not appear on the register of shipping for the year ended 1902.

Meteor, screw steamer, registered at Ottawa; built at Opemican, Que., 1897; length, 130.5 ft.; breadth, 27 ft.; depth, 7.4 ft.; tonnage—gross, 299 tons; register, 204 tons; licensed to carry 350 passengers.

Temiscamingue, sidewheel steamer, registered at Ottawa; built at Temiscamingue, Que., 1898; length, 133 ft.; breadth, 22.5 ft.; depth, 6.5 ft.; tonnage—gross, 413 tons; register, 236 tons.

Beaver, sidewheel warp tug, built at Simcoe, Ont., 1893; owned by A. Lumsden, Ottawa; length, 36 ft.; breadth, 16 ft.; depth, 3.2 ft.; tonnage—gross, 13 tons; net, 6 tons.

Beaver, sternwheel tug, owned by A. Lumsden, Ottawa; built at Temiscamingue, Que., 1899; length, 47.4 ft.; breadth, 16.7 ft.; depth, 4.2 ft.; tonnage—gross, 16 tons; net, 8 tons.

Dora, screw steamer, built at Opemican, Que., 1889; length, 61.6 ft.; breadth, 13 ft.; depth, 5.5 ft.; tonnage—gross, 48 tons; net, 44 tons.

Little Roxey, screw tug, built at Baie des Pères, 1896; length, 41.7 ft.; breadth, 8.3 ft.; depth, 3 ft.; tonnage—gross, 12 tons; net, 7 tons.

Mink, screw steamer, built at Gordon Creek, Que., 1896; length, 37 ft.; breadth, 16 ft.; depth, 3.5 ft.; tonnage—gross, 14 tons; net, 9 tons.

In addition to these vessels there were added a large passenger steamer—Jubilee—carrying passengers from Temiscamingue to New Liskeard; two passenger steamers—Swan and Geisha—running between New Liskeard and Tomstown, and three tugs, owned by the Upper Ottawa Navigation Co. The three first mentioned steamers were brought in from other points of Ontario, and have been altered for their new routes, and the three latter are new steamers built in the spring at Toronto; the dimensions, etc., of neither of these appear in the last register of Canadian shipping.

On the adjoining waters of Lake Kippawa, Que., several steamers are being operated, connection being had with the railway at Kippawa, a spur line running from Temiscamingue. Following are details.

Alice, screw steamer, owned by P. Kelley, Kippawa, Que.; built at Kippawa, Que., 1901; length, 62 ft.; breadth, 12.6 ft.; depth, 4.8 ft.; tonnage—gross, 26 tons; net, 18 tons; licensed to carry 40 passengers; operating between Turtle Portage and Kippawa.

Charlotte, screw steamer, owned by P. Kelley, Kippawa, Que.; built at Quebec, 1880; dimensions: length, 37 ft.; breadth, 10.3 ft.; depth, 3.6 ft.; tonnage—gross, 14 tons; net, 9 tons.

D. A. Martin, screw steamer, owned by A. Lumsden, Ottawa; built at Kippawa, Que., 1889; dimensions: length, 84 ft.; breadth, 16 ft.; depth, 6 ft.; tonnage—gross, 78 tons; net, 57 tons; licensed to carry 40 passengers; operates between Turtle Portage and North River, Que.

R. Hurdman, screw steamer, owned by A. Lumsden, Ottawa; built at Kippawa, Que., 1892; length, 103 ft.; breadth, 19.7 ft.; depth, 6.6 ft.; tonnage—gross, 93½ tons; net, 68 tons; licensed to carry 40 passengers; operates between Turtle Portage and Kippawa, Que.

C. E. Read, warp tug, built at Simcoe, Ont., 1894, owned by W. H. Hurdman, Ottawa; operating on Kippawa lake.

North River, warp tug, built at Kippawa, Que., 1899, owned by H. F. and C. McLachlin, Arnprior, Ont.; operating on Kippawa lake.

Otter, warp tug, owned by A. Lumsden, Ottawa; built at Kippawa, Que., 1895; length, 48.2 ft.; breadth, 16 ft.; depth, 3.6 ft.; tonnage—gross, 21 tons; net, 12 tons.

The Dominion Marine Association.

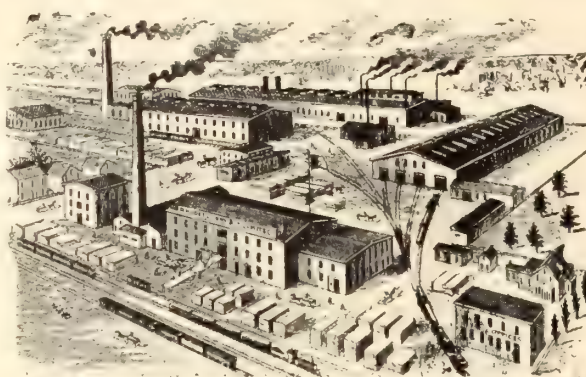
The following circular has been issued by the President and Secretary: Six months have passed since the convention held in Ottawa at which it was resolved to form a permanent organization to be known as the Dominion Marine Association. In this time the Association has been established upon an apparently firm footing and is already able to point to decidedly successful results in the matters it has undertaken. Amongst these may be mentioned:

CANALS AND CANAL TOLLS.—The Ottawa Convention asked that the canals should be made free. Proof of the statements made by the deputation being required before the ex-Minister of Railways and Canals would consent to consider the removal of the tolls, a committee of this Association forthwith met in Ottawa and prepared comparative statements of the charges for carriage of grain by way of the Erie and the Welland and St. Lawrence canals. Copies of these were sent to all the ministers, and later the committee met Mr. Blair and discussed the statements with him. Further statements were subsequently prepared in Kingston and Montreal, and likewise submitted, and the information furnished, with that in possession of the Government, was sufficient to support the petition for removal of the tolls. The Canadian canals have been declared free for two years, and the St. Lawrence route has thus been placed in a position to compete fairly with that by way of Buffalo. Under this heading reference may be made to two or three accidents which vessels have suffered in the Lachine and Cornwall canals. The assistance of this Association has been enlisted and representations have been made to the Department by the Secretary, which have in each case received attention and have been followed by instructions in the proper quarter made with a view to remedying any defects complained of and assisting vessels using the canals.

TONNAGE DUES AND INSPECTION FEES.—Immediately after the Ottawa convention the petition on this subject was followed up by correspondence. Authoritative information was compiled in support of the arguments adduced, and this was placed in the hands of all the ministers, while at the same time many members of the Association responded to a request for individual action and personally submitted their views to the Minister of Marine. On April 28 instructions were telegraphed by the Department to all inspectors instructing them to issue inspection certificates without requiring payment of the usual fees and dues. At a later date the Minister introduced a bill to amend the law, which has been passed. The sections of the Steamboat Inspection Act of 1898 under which tonnage dues and inspection fees were collected are repealed. The fees and dues are placed under the control of the Governor-in-Council, so that at any time they may be in whole or in part re-imposed. It is submitted that this result demands further consideration by this Association. The argument for the removal of these obnoxious charges justified their total abolition, and no reason is apparent for leaving it in the power of the Government to revive them. In the meantime, however, the desired exemption from their burden has been, at least, temporarily gained. Certain members of this Association obtained inspection and paid fees and dues before the instructions of April 28 were issued to inspectors, and found some difficulty in obtaining refunds. This Association was appealed to and action has been taken to have injustice prevented if possible. The matter has been promised consideration by the Department, and there should be no doubt that all steamboat owners will be placed in the same position for the year 1903 by refund being made of any fees collected.

RECIPROCAL INSPECTION.—Another important provision in the Act above referred to enables the Governor-in-Council to enter into reciprocal inspection arrangements with countries outside of Canada. This provision results from the action of this Association in calling attention to the statute and orders in

force in the U.S., and the reciprocal arrangements already entered into between that country and certain foreign powers. It will be in order now for the Government to carry this provision into effect and bring about the desired reciprocal inspection regulations with the U.S.



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Cables for Aerial and Underground Use.

CUSTOMS FEES.—In this, the remaining one of the three main questions taken up at Ottawa, the results are set out in the memo. on the subject, dated July 28, issued by the Customs Department and published in *THE RAILWAY AND SHIPPING WORLD* in Nov. Temporary regulations were made earlier in July, but an Order-in-Council was passed on the date above named and subsequently embodied in this departmental memorandum, which supersedes the previous regulations. It will be seen that the Association has been successful in the main issue, that overtime should be paid by the public revenue, but at the same time important restrictions are made by the Government in granting this concession, notably, that parties accommodated must still pay for services rendered on Sundays or on board moving trains or vessels. The new tariff of charges for special services is, however, less burdensome, and in the matter of services on board of moving trains and vessels the Department is apparently prepared to allow some latitude when it can be proved that the services so performed accommodate the public and the officers as well as the transportation company. Considerable correspondence has taken place on the subject of services of officers on Sundays, and it has been pointed out that the question is not one of Sabbath observance at all, but simply whether it is proper for the Government to exclude one day of the week from those for which it is willing to pay, if at the same time it concedes the two points that certain traffic is necessary on that day as well as on others and that the public revenues should pay for their own necessary protection.

MARINE ENGINEERS.—Bill 136 of the last session of Parliament, to amend the Steamboat Inspection Act so as to satisfy the demands of the National Association of Marine Engineers, was protested against by this Association, and the promise of the Deputy Minister was obtained that the Association would be given an opportunity to express its views before a sub-committee to which the bill would be referred. In expectation of this meeting a circular was sent to all the members of this Association and a number of letters were received in reply containing careful arguments against the main provisions of the bill, while several members expressed their willingness to go to Ottawa to oppose it before the Committee. In the meantime overtures have been made to the engineers with a view to bring about a mutually advantageous understanding, and as the Bill referred to has not yet become law, it is probable that a conference will be arranged before next session.

RULES OF THE ROAD.—Owing to the absence of H. D. Goulder, Chief Counsel of the U.S. Lake Carriers' Association, it was impossible until recently to make any progress in the proposed work of assimilating the Canadian and U.S. rules. Since Mr. Goulder's return, the matter has been referred to J. Bertram, Chairman of the Transportation Commission appointed by the Government to consider all such questions. Until this Commission can sit and hear evidence the matter stands. In the meantime the U.S. rules are being pretty generally applied in the rivers in order to guard against confusion, in spite of the risk that is run in using them in Canadian waters. When navigation finally closes, and the members of this Association, who are experienced in the rules on both sides of the line are free to attend the Commission, the question is to be finally discussed so that a proper report may be made to the Government.

The tonnage represented in the Association is shown by the list of members who have paid the 1903-1904 assessment, which is printed further on. Present appearances indicate that the expenses will not require so large an assessment for next year as for this.

A great deal of correspondence has taken place in connection with the organization of

this Association, and in answering enquiries and attending to special matters brought forward by individual members. The desire is that each member should have full opportunity to enlist the Association's services on every occasion that these services can be of general advantage. The Executive Committee met in Ottawa on April 8, and in Kingston on May 18. It is proposed to hold a third meeting in Toronto, probably about the middle of Dec., for general business and to consider and prepare for the matters which should be brought before the annual meeting of members to be held in Ottawa during the early part of next session of Parliament.

BUSINESS FOR ANNUAL MEETING.

Among matters to be brought before the annual meeting the following have been suggested:

ENLARGEMENT OF THE WELLAND CANAL.—The subject of greatest importance to the Dominion at large, and therefore to this Association, in connection with marine matters, is the improvement of the St. Lawrence route, so that it may become the unrivalled highway, not only for the commerce of the Dominion, but also for that of the northern portion of the U.S. Hitherto ocean freights to Europe have generally been, and from geographical and other conditions will probably continue to be, somewhat lower from U.S. ports than from Montreal; so that we must look to the superiority of our inland facilities to counteract this disadvantage; and it is by many believed that the time has arrived for pressing upon the Government the enlargement of the Welland canal as the most important step to that end. The advantage of the inland portion of the U.S. route lies in the wonderful cheapness with which grain can be carried to Buffalo in the large upper lake vessels of 6,000 tons and over; but it is claimed that when these vessels can extend their voyage to the full length of lake navigation, the longer haul and the larger freight which will then be open to them, will cause them to become feeders to the Canadian route in preference to the other. The comparative facilities would then be—By the U.S. route: A steamer of 6,000 tons for 900 miles to Buffalo, and barge of 1,000 tons for 450 miles to New York; and by the Canadian route: A steamer of 6,000 tons for 1,100 miles to the east end of Lake Ontario and barge of 2,000 tons for 170 miles to Montreal. And this difference places the advantage decidedly with the Canadian inland route. The question forces itself upon our attention, and it seems eminently proper that it should have the early and careful consideration of the Association.

CLOSING OF CANALS ON SUNDAY.—The canals are at present closed on Sunday, except after Oct. 1 in each year, when they are opened to permit as large a portion as possible of the harvest to get to market before the close of inland navigation. As nature's waterway is not closed, as railways are not closed, as the Erie canal is not closed, as the season of navigation is all too short, as the main purpose for which the canals were constructed is to facilitate the transportation of freight in its carriage for long distances, making one great water highway, the other portions of which are not closed; it is contended that the canals should not be closed on Sunday. Complete abolition of canal tolls, tonnage dues, and inspection fees, as hereinbefore set forth.

Harbor dues and charges at government wharves.

Qualification of masters, mates and engineers, and better facilities for their education. Shipbuilding in Canada.

The Association having been formed for the general benefit and united action of marine interests, in order to secure results which are difficult to secure, and which in the past have not been secured by individual effort, we

would suggest that if there are any matters either in respect of the subjects indicated, or others, which you think it would be beneficial to marine interests to have carried out, you should furnish your views thereon to the Secretary before Dec. 15, so that they may be considered by the executive at its next meeting, preparatory to the annual meeting.

LIST OF MEMBERS.

	NET REGISTERED TONNAGE.	
	Steam Vessels.	Sailing Vessels and Barges.
The British Yukon Nav. Co., Ltd., Whitehorse, Yukon.....	3,533.61	
The Calvin Co., Ltd., Garden Island, Ont.....	2,410.	1,793.
R. Cunningham & Son, Port Eslington, B.C.....	273.94	
The Canadian Pacific Car & Passenger Transfer Co., Ltd., Prescott, Ont.....	565.01	
J. & T. Conlon, Thorold, Ont.....	400.	600.
The Donnelly Salvage & Wrecking Co., Ltd., Kingston, Ont.....	90.	325.
The Dominion Iron & Steel Co., Ltd., The Dominion Coal Co., Ltd., Sydney, C.B.....	4,892.	3,304.
The Dominion Fish Co., Ltd., Selkirk, Man.....	784.92	
The Ewing & Fryer Fish Co., Ltd., Selkirk, Man.....	29.79	
J. H. Hall, Ottawa, Ont.....	453.	
R. T. Holcomb, Ottawa, Ont.....	150.	
A. Hicks, Trenton, Ont.....	85.	
A. W. Hepburn, Picton, Ont.....	1,245.	1,218.
F. E. Hall, L'Orignal, Ont.....	157.	
The Hamilton Steamboat Co., Ltd., Hamilton, Ont.....	625.	
The Hamilton & Montreal Nav. Company, Ltd.....	360.	
The Hamilton & Fort William Nav. Company, Ltd.....	2,687.	
Huntsville, Lake of Bays and Lake Simcoe Nav. Co., Ltd., Huntsville, Ont.....	180.97	
International Ferry Co., Buffalo, N. Y.....	170.	
Lake Ontario & Bay of Quinte Steamboat Co. Ltd., Kingston, Ont.....	1,043.	
J. B. Miller, Toronto, Ont.....	566.	
The Montreal Transportation Co., Montreal.....	3,821.	15,686.
The Muskoka Lakes Nav. & Hotel Co., Ltd., Gravenhurst, Ont.....	1,035.96	
The Niagara Nav. Co., Ltd., Toronto, Ont.....	2,016.48	
The Northern Fish Co., Selkirk, Man.....	155.10	
The New Ontario Steamship Co., Ltd., Hamilton, Ont.....	996.	
The Northwest Nav. Co., Ltd., Selkirk, Man.....	263.98	1,083.15
The Ottawa River Nav. Co., Montreal.....	1,505.	
James Playfair, Midland, Ont.....	1,348.97	
A. E. Pontbriand, Sorel, P. Q.....	183.32	418.32
The Rideau Lakes Nav. Co., Kingston, Ont.....	391.	
The Rathbun Co., Deseronto, Ont.....	695.	296.
The Rainy River Nav. Co., Ltd., Rat Portage, Ont.....	721.97	
The Richelieu & Ontario Nav. Co., Montreal.....	14,475.	
The St. Lawrence & Chicago Steam Nav. Co., Ltd., Toronto, Ont.....	3,600.	
The Trent Valley Nav. Co., Ltd., The Toronto & Montreal Steamboat Co., Ltd., Toronto, Ont.....	234.21	
The Upper Ottawa Improvement Co., Ltd., Ottawa, Ont.....	500.	
The Wentworth Nav. Co., Ltd.....	1,431.	
A. A. Wright, Toronto, Ont.....	455.	
	1,604.	
	56,134.23	24,723.47
In addition the following applications for membership have been received:		
The Canadian Lake & Ocean Nav. Co. Toronto, Ont.....	3,536.	
Jas. Carruthers, Toronto, Ont.....	358.	
	3,894.	
	60,028.23	24,723.47

The following tonnage has been declared by members of the Association since the last list we published:

A. A. WRIGHT, TORONTO—Tadousac, 1,451 tons register; Charlton, 140 tons register; Reginald, 13 tons register. Total three steamers, 1,604 tons register.

LAKE ONTARIO AND BAY OF QUINTE STEAMBOAT CO.—North King, 499 tons register; Caspian, 544 tons register. Total two steamers, 1,043 tons register.

BRITISH YUKON NAVIGATION CO. (LTD.)—Stern wheel steamers operating on Yukon river: White Horse, 630.69 tons register; Dawson, 490.62 tons register; Selkirk,

489.67 tons register; Columbian, 455.15 tons register; Canadian, 455.15 tons register; Victorian, 455.15 tons register; Gleaner, 149.05 tons register; Scotia, 134.87 tons register; Barley, 132.08 tons register; Zealandian, 141.18 tons register. Total, 10 steamers, 3,533.61 tons register.

RICHIEU AND ONTARIO NAVIGATION CO.—Algerian, 575 tons; Beaupre, 1,070 tons; Bohemian, 647 tons; Boucherville, 256 tons; Berthier, 439 tons; Columbian, 596 tons; Cultivator, 228 tons; Chambly, 247 tons; Corsican, 501 tons; Carolina, 610 tons; Canada, 961 tons; Fire Fly, 129 tons; Hamilton, 476 tons; Hosanna, 59 tons; Kingston, 1,908 tons; Laprairie, 372 tons; Longueuil, 331 tons; Quebec, 1,272 tons; Saguenay, 592 tons; Spartan, 543 tons; Toronto, 1,651 tons; Three Rivers, 793 tons; Terrebonne, 319 tons. Total, 23 steamers, 14,475 tons register.

St. Lawrence Route Improvements.

In Oct., 1902, we published a statement of the work in progress on the St. Lawrence in the way of deepening the channel between Quebec and Montreal, and of the additional aids to navigation which the Department of Marine was preparing to place in position at different points in the river and gulf, with a view of rendering the route more accessible and safe than formerly. The work as outlined in that article has been carried out and further works are proposed to be done by the present Minister of Marine, Hon. R. Prefontaine, out of a vote of \$512,000 passed at the recent session of Parliament. The work already completed on the St. Lawrence route in improving aids to navigations since the opening of the season of 1902 are as follows:

Cape Rosier.—The fog whistle has been strengthened and the light made occulting and greatly increased in brilliancy.

Fame Point.—A siren on the Hamilton-Foster principle has been established and the lighthouse has, at the request of the Messrs. Allan, been painted a bright red as an experiment, to ascertain if that color will be more conspicuous as a land mark than the white and black previously used.

Manicouagan shoal.—A whistling buoy was established on the south extremity in 1902.

Matane.—A bell buoy was established in 1902, on the extremity of the shoal.

Father Point.—A first-class siren has been put in operation and the light has been made a very strong acetylene light.

Rimouski.—A gas buoy was established in June, 1903, to mark the point where mail steamers should meet the steam tender in receiving and delivering mails.

Prince shoal.—This danger at the mouth of the Saguenay has been marked by a combining gas and bell buoy.

Lower Traverse.—A lighthouse pier was successfully sunk in 1902, and it is hoped that the pier will be completed and a permanent lighthouse and siren erected on it this year. Temporary lights are already maintained at this important point. A gas buoy was also established in 1903 on the north side of the channel, opposite this pier.

St. Jean Port Joli.—A gas buoy was anchored off this point in 1902.

Bellechasse.—The light has been changed from fixed to occulting and greatly increased in strength.

Beaumont shoal.—A gas buoy was established on the north edge of this shoal in 1902.

St. Nicholas.—The semaphore, previously maintained at Cap Santé, was moved to this point in 1902, to indicate the depth over St. Augustin bar, now the shoalest point in the ship channel.

St. Antoine.—The lights at this point were re-arranged in 1902, one old light being discontinued and three new range lights being established.

Point Platon.—A gas buoy was established here in 1902.

Barre à Boulard.—The system of lights leading through this cut was re-arranged on July 1, 1903, two new lights being changed in color and strengthened, and three old lights being abandoned.

Batture Simon.—A gas buoy was anchored on this shoal in June, 1903.

Batiscan.—The arc of visibility of the front light was enlarged in 1902.

Yamachiche.—A gas buoy was placed on a bend in the channel opposite this point in June, 1903.

Contrecoeur to Varennes.—In this stretch of the channel six new range lights were established in 1902, and two additional range lights in June, 1903. A pair of day beacons on concrete piers has also been erected and one gas buoy established at Varennes curve.

Ile à l'Aigle.—Two range lights were established here in 1902.

Pointe aux Trembles.—The range lights heretofore maintained at Pointe aux Trembles were discontinued on the opening of navigation in 1903 and a new tower established at Varennes, which, ranging with one of the Ile à l'Aigle lighthouses, marks more correctly the channel heretofore marked by the Pointe aux Trembles range lights.

Dominion Line Steamships

FAST TWIN-SCREW SERVICE. WEEKLY SAILINGS.

HALIFAX TO LIVERPOOL PORTLAND TO LIVERPOOL

HALIFAX TO LIVERPOOL

Dominion - Wednesday, Dec. 6th, noon

PORTLAND TO LIVERPOOL

Cambrian - Saturday, Dec. 5th, 2 p.m.
Canada - Jan. 2nd, "
Dominion - Jan. 23rd, "

Spacious Promenade Decks, Electric Light, Passenger Accommodation, all amidships.

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Equalizing, Drawbar, Buffer and Spiral Springs of all kinds.

Locomotive, Tender and Passenger Car Springs of every description.

Electric Car Springs from the largest to the smallest.

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The Accident and Guarantee Co. of Canada, MONTREAL.

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New and Secondhand Contractors' Plant, etc.

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D. L. WHITE, Vice-President.

J. W. BENSON, Sec'y-Treas.

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First-Class Tugs for Wrecking, Raft Towing, Etc. Steam Pumps, Divers, Jacks, Hawsers and Lighters.

Longueuil.—A gas buoy was established here in June, 1903.

Further improvements contemplated or now in course of construction on the same route, are as follows:

Cape Race.—The light will be improved next year, and a stronger fog alarm is being built to replace the present whistle.

Cape Pine.—Representations are being made to the Imperial and Colonial Governments asking them to co-operate with the Canadian Government in establishing a first-rate fog-signal at this point.

Cape Ray.—The light and fog signal will be strengthened this year.

Bird Rocks.—The light will be made occulting this year.

Bryan Island.—A lighthouse will be built on the west end of this island.

Entry Island.—The lighthouse is now in course of being moved to a more prominent site, whence it will be visible very much farther and over a much larger arc.

Fame Point.—The present alternating red and white light will be replaced by a stronger one this year.

Belle Isle.—A new iron lighthouse has been constructed for erection on the northeast end of this island, and the materials have been shipped to the island, so that the station ought to be in operation this autumn.

Cape Norman.—The characteristic of the fog alarm at this point is being changed.

Point Amour.—The light will be made occulting and greatly strengthened during the present summer.

East end of Anticosti.—A first-class light-ship with electric lights, steam fog alarm and steam power, is under construction for this important station, and ought to be ready for mooring in the autumn of 1903.

Matane.—A first-class steam fog siren is being constructed for this station, and the light will ultimately be improved.

Saguenay mouth.—The range light buildings formerly operated on Point Noir will again immediately be put in operation to form an additional safeguard in entering and leaving the Saguenay.

Grondines.—Two range lights will be established on the point in 1903 to replace unlighted beacons now maintained, and the present range lights at Grondines will be moved westward into the axis of the ship channel.

Ile Aux Raisins.—A new back range tower is being erected here higher than the old one, and will be put in operation immediately.

Contrecoeur.—To guide through the dredged channel off Contrecoeur three pairs of range lights are under construction, and will be in operation before the dark nights of autumn in 1903.

Sorel to Montreal.—To light the dredged ship channel between Sorel and Montreal 15 additional gas buoys have been ordered and will be placed in position as soon as they have been delivered from the Pintsch company. When these buoys are in position the deepest draught vessels can navigate the portion between Sorel and Montreal at night.

The improvements enumerated above only embrace the deep draught ship channel from Montreal to the ocean.

While this portion of the Canadian navigable waters has been receiving prompt attention, other portions of the coast have not been neglected. The approaches to Sydney, Louisburg, Halifax and St. John have all been improved by extending and increasing the number of aids to navigation. In Halifax harbor, especially, three new gas buoys and two additional lighthouses, to be used as range lights in connection with previously existing lights, have been established. It has been the aim of the Government to remove every preventable cause of complaint against the St. Lawrence route. Shippers have stated that charges for freight and insurance by this route are so great that it is difficult for ship

owners to make a profit on their enterprise, and it is stated that the insurance for St. Lawrence ports is from two to five times as great as from American ports. This is evidently a heavy tax on the Canadian producer, as compared with the U.S. exporter, and the reason for this high rate is to a great extent the many casualties which have happened on the St. Lawrence route.

The Chief Engineer of the Department visited British Columbia in the autumn of 1902 and located a new lighthouse at Clayoquot, and five or six new lighthouses in the inside channels and on the northern route, which are in operation or in course of construction. Additional aids to navigation are being supplied on the great lakes to render navigation from Fort William to Montreal safer. Especial attention has been paid to the 14-foot channel between Kingston and Montreal, and an elaborate system of buoys and lights, in charge of a special assistant, has been inaugurated. The buoys in this section are filled with compressed acetylene, and acetylene is being introduced into the light-houses.

The tidal and current survey work is being continued and extended. With a portion of the vote granted last year the steel steamer *Gulnare*, previously used by the Imperial Government for hydrographic work, was purchased, and Dr. W. B. Dawson is now employing her in investigating the set of the currents off Cape Race, where many casualties to vessels bound to and from the St. Lawrence have occurred. Tide tables are prepared annually from tidal records procured from this survey for all the more important harbors both in Eastern Canada and in British Columbia, and as additional records are secured the accuracy of these tables is increased. Work is going on to extend the number of places which can be referred to as points for which tide tables are published, so that tidal differences can be given. It is proposed to utilize the *Gulnare* next year in investigating the currents at the entrance to the Bay of Fundy and their relations to the tides.

Notices to Mariners.

The following notices to mariners have been issued by the Department of Marine:

No. 99. Oct. 20.—Ontario—248. Lake Erie, Port Colborne, lighthouse established on breakwater.

No. 100. Oct. 22.—Ontario—253. Lake Superior, northeast shore, Otter island, lighthouse established. 254. Lake Superior, north coast, State islands, Sunday harbor, lighthouse established.

No. 101. Oct. 22.—Quebec—255. River St. Lawrence, ship channel between Quebec and Montreal, Platon range and Richelieu inlet, lights relit.

No. 102. Oct. 29—256. Lake Superior, Silver islet, range lights.

No. 103. Oct. 30.—Quebec—257. Chaleur bay, New Carlisle, light on wharf. Newfoundland—258. East coast, St. John's harbor, Merlin rock, increased depth.

No. 104. Oct. 30.—New Brunswick—263. Gulf of St. Lawrence coast, Miramichi river, Grant beach, range lights improved.

The following have been issued by the U.S. Hydrographic Department:

No. 44. Oct. 31.—St. Lawrence river—2203. Below Clayton, N.Y., shoal spots reported.

No. 45. Nov. 7.—St. Mary's river—2251. Dark Hole and Coyle Point gas buoys, change in position.

Since the article giving details of the work of the Dominion Marine Association was put in type, the following additional tonnage has been declared by new members: Ottawa Transportation Co. (Ltd.), 178 tons, steamers, and 9,464 tons, sailing vessels, barges, etc.; J.B. Fairgrieve, Hamilton, 770 tons, steamers.

Maritime Provinces and Newfoundland.

The Bras d'Or Steamboat Co. has sold its str. *Elaine* to the Star Steamship Co., St. John, N.B.

The Eastern Steamship Co.'s str. *Calvin Austin* will be placed on the St. John (N.B.)-Boston run for the winter.

Tenders are asked for the operation of a steam ferry for five years between Indian town and Lancaster, on the St. John river, N.B.

The tug *Henry Hoover*, built in Philadelphia, Pa., 1863, and owned by G. S. Campbell & Co., Halifax, was sunk by collision with a schooner in Halifax harbor, Nov. 4.

A 900-ton barque, *Edna M. Smith*, has been launched at Harvey Bank, N.B., for J. N. Smith, of Coverdale, N.B.; and a 100-ton schooner, *Valonia*, for the West Indian trade, has been completed at Lunenburg, N.S.

The Canada-Atlantic-Plant Line has not yet decided to put a steamer on the Sydney-Hawkesbury, N.S., route, via the Bras d'Or lakes, from which the Bras d'Or Steamboat Co. has withdrawn, as has been reported in the daily press.

A new tug, named *Lord Dundonald*, is being completed at St. John, N.B., for J. Moore. The hull was built at Spencer's Island and towed to St. John for the engines. Dimensions: length, 88 ft. 6 in.; breadth, 19 ft. 6 in.; depth of hold, 9 ft. 6 in.

A company is being formed in New Brunswick to operate a steamer on a route between Bridgetown and points on the Annapolis river to St. John, N.B. It is proposed to build a new steamer. The company's office will be at Bridgetown, N.S.

G. Robertson, M.L.A., states that the Dominion Government has approved of the plans of the proposed dry dock at St. John, N.B., that the approval of the N.B. Government is expected at an early date, and that tenders will be asked for immediately thereafter.

The river str. *May Queen*, of St. John, N.B., has been sold by Capt. Brennan to a syndicate, which proposes to continue her on the Grand Lake service. Capt. Brennan is retiring from active work. He has had over 50 years' service, for 34 of which he was in command of the *May Queen*.

D. McNichol, 2nd Vice-President and General Manager; G. M. Bosworth, 4th Vice-President, and other officials of the C.P.R. have been in St. John, N.B., conferring with the local authorities in reference to the harbor accommodation at that port, and the improvement of the same. Suggestions have been made for the expenditure of about \$2,000,000 on new piers, etc.

The vessels scheduled to sail from Canadian ports to South Africa for the winter months are the *Wyandotte*, *Melville*, *Oriana* and *Monarch*. There will be one sailing each way a month. The companies interested in the service are the Elder-Dempster Co. and the Furness-Withy Co.

A despatch recently published in the daily papers states that the German Government has established stations on the frontier of Saxony in order to prevent intending immigrants from passing to Dutch or Belgian ports, thereby compelling them to travel on German steamers, and preventing them reaching C.P.R. steamers. The despatch says this will mean a loss to the C.P.R. steamers of 50,000 passengers annually. An officer of the C.P.R. advises us that there was no necessity for such a scare despatch. The German Government has maintained control stations along its frontiers for years; it has merely added one more, on the frontier of Saxony. The British trans-Atlantic steamship lines are in no worse position in this respect to-day than they have been for years.

Province of Quebec Shipping.

R. J. Goodwell, of Quebec, who at one time owned 23 sailing vessels, with home port at Quebec, died in Montreal recently aged 84.

The Montreal Harbor Commissioners have decided to erect two-storey sheds at the new wharves, subject to the approval of the Department of Public Works.

The International Steamship Co., which built two ocean steamers on the Great Lakes, and took them through the Canadian canals in sections, has sold them and gone out of business.

The completion of the gas buoy system in the channel of the St. Lawrence between Montreal and Sorel, at the end of Oct., enabled navigation to be carried on at night for the rest of the season.

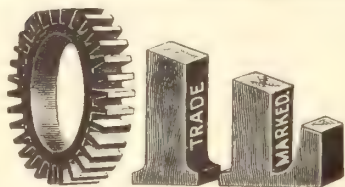
The shipping interests of Quebec complain of the lack of steamers, and it is reported that an attempt will be made to start an independent line of ocean-going steamers with head offices at Quebec.

The act transferring the pilotage service on the St. Lawrence, Montreal district, from the Harbor Commissioners to the Minister of Marine; and declaring the Saguenay river to

be separated from the port and pilotage district of Quebec, comes in force Jan. 1, 1904.

The steamers Quebec and Canada, of the Quebec-Montreal line, and the Virginia, of the Saguenay line of the Richelieu and Ontario Navigation Co., have been equipped with electric searchlights of 4,000 candle power.

The Montreal Transportation Co.'s shareholders at a recent meeting endorsed the action of the directors in applying to the Dominion Government for a new charter. The object of the new charter is to bring the Company under the provisions of the Companies' Act of 1902.



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Vacuum Oils Reduce Friction, thus saving Coal and preserving Machinery.

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TORONTO and QUEBEC.

MANITOBA

The Government Crop Bulletin issued Dec. 12th, 1902, gives the following statistics for the year:

CROPS.

ACRES.	YIELD.	TOTAL.
Wheat.....2,039,940	26. bus.	53,077,267 bus.
Oats.....725,060	47.5 "	34,478,160 "
Barley.....329,790	35.9 "	11,848,422 "
Potatoes.....22,005	157. "	3,459,325 "

STOCK.

Number of stock in the Province, July 1, 1902:	
Horses.....146,591	Sheep.....20,518
Cattle.....282,343	Pigs.....95,598
Value of Dairy Products.....	\$926,314

15,000 FARM LABORERS

Came from Eastern Canada to assist in the harvest fields of Manitoba in 1902—and the demand was not fully satisfied.

MANITOBA FARMERS ARE PROSPEROUS.

Farmers erected, this year, farm buildings valued at one and one-half million dollars.

MANITOBA LANDS—For sale by the Provincial Government. Over 1,000,000 acres of choice land in all parts of the Province are now offered at from \$2.50 to \$5.50 per acre. Payments extend over nine years. **Special Attention** is directed to 800,000 acres along the line of the Manitoba and Northwestern Railway at \$3.50 and \$4.00 per acre.

FREE HOMESTEADS are still available in many parts of the Province.

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Or J. J. GOLDEN, Manitoba Emigration Agt., 617 Main St., Winnipeg, Man.



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Excursions, Sept. 15th, Oct. 20th

To all points in Louisiana and Mississippi, \$16.00 from Chicago.

To all Texas points on the Southern Pac. Ry. at proportionate rates.

The Local Agent is asked to note Cheap Rates to all the North-West, also to California from Sept. 15 to Nov. 30, nearly \$20 less than regular second-class fare and ordinary Pullman service from Chicago or Cincinnati. Special folders for St. Paul, Minneapolis, California and West, and regular folders with it all in. July folder is a good one. Get it!

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W. Johnson Quinn, Prop.

During the season of navigation to Oct. 31, 713 ocean-going vessels, having a tonnage of 1,725,693 tons, arrived in Montreal; against 657 vessels, of 1,385,365 tons during the same period 1902. To the same date 9,675 inland vessels, of 2,157,570 tons, arrived in the port, against 8,281 vessels, of 1,664,096 tons in 1902.

The Canadian Transit Co. (Ltd.), which was recently incorporated under the Ontario Companies' Act, will have as its Canadian board, John Torrance, R. Bickerdike, A. Racine, of Montreal, and C. B. K. Carpenter, Gaspé, Que. There will also be a board in England. The secretary is J. Gowan, and the Managers are Blakeley & Lemieux. The Company has opened an office in the Coristine Building, Montreal. It is proposed to put on 12 steamers to operate between Montreal and the upper lakes, and which will carry 60,000 or 70,000 bush. on a 13 ft. 6 in. draught. It is stated that some of the steamers will probably be on the lake next spring. It is understood that the Company will be financed by the New Canadian Co. (Ltd.), which owns the charter of the Atlantic, Quebec and Western Ry.

Ontario and the Great Lakes.

The machinery of the dismantled Empire State is reported as being stored with a view to its being utilized on a new steamer.

The Amherstburg town council has decided to purchase the McClary dock, and open it for the benefit of all vessels coming to the port.

The new tug under construction at Collingwood for the Montreal Transportation Co., was launched Nov. 18, and was named the Emerson.

The new lighthouse at Port Colborne has been completed, and a temporary light placed. A powerful fog horn will be added to the equipment.

Capt. McMaugh, of St. Catharines, has brought an action against the Hamilton and Fort William Navigation Co. for damages for wrongful dismissal.

An engineer from the Department of Public Works recently went over the route of a proposed extension of the Rideau canal from near Burford Mills to Desert Lake, about 10 miles.

The Wolfe Island township council has placed an order with the Bertram Engine Works, Toronto, for a ferry steamer, to cost \$25,000, to run between Wolfe Island and Kingston.

C. Schrieber, Deputy Minister of Railways and Canals, inspected the terminal facilities at Port Colborne recently. It is proposed to deepen the harbor from the lake to the lock on the Welland canal to 22 ft.

The str. Ocean, on a recent trip from Montreal to Toronto, went ashore on Rock Point, off Wolfe island, and was got off after being fast 22 hours, without material damage. She was repaired at Port Dalhousie.

The various steamers operated among the Thousand Islands of the St. Lawrence by Capt. W. L. Visgers of Alexandria Bay, N. Y., have been acquired by a joint stock company, of which Capt. Visgers is one of the promoters.

An order has been placed with a firm at Newcastle-on-Tyne, Eng., by the Lake Ontario Steamship Co., for a turbine steamer for the Hamilton-Toronto run. The steamer will be of full canal size, and will have accommodation for 1,500 passengers.

The str. Advance, owned by Jas. Carruthers, Toronto, was burned to the water's edge and sunk at the New Ontario dock, Sault Ste. Marie, Ont., recently. The steamer was valued at about \$50,000, and she had on board

a cargo consisting principally of fish plates and cement.

The Dominion Government hydrographic survey steamer Bayfield has been laid up for the winter at Owen Sound. During the season she has been engaged on Lake Superior, from Pigeon river, 35 miles from Port Arthur, to the eastern limits of Thunder bay. It will require several years to complete the work on the lake.

The Lurcher, the first of the two lightships under construction at the Polson Iron Works, Toronto, for the Dominion Government, was recently launched. The lightship is the first to be built in the country, and will be placed in service on the Lurcher shoal off Yarmouth, N.S., this season. A second lightship to be placed off Anticosti island was launched at the same works Nov. 23.

There was recently launched at Cleveland, Ohio, a car ferry no. 19 for the Pere Marquette Rd., for the Ludington, Manitowoc and Milwaukee route on Lake Michigan. The company is also having built at Cleveland car ferry 20 for the route between Port Huron, Mich., and Sarnia, Ont. A car ferry for the route between Conneaut, Ohio, and Port Stanley, Ont., has been launched at Buffalo, N. Y.

The total freight passing through the Canadian and the U.S. canals at Sault Ste. Marie, in Oct., was 4,475,965 tons, against 4,618,391 tons in Oct., 1902. The figures for the Canadian canal are:

	1903.	1902.	Increase or Decrease.
April	159,763 tons	197,926 tons	38,163 tons—
May	636,747 "	334,262 "	302,485 " +
June	917,105 "	1,118,564 "	201,459 " —
July	890,338 "	523,936 "	366,402 " +
Aug	879,420 "	639,858 "	239,562 " +
Sept	639,320 "	560,031 "	79,289 " +
Oct	683,405 "	604,713 "	78,692 " +

4,806,098 tons 3,979,290 tons 826,808 tons +
+ increase. — decrease.

The str. Atlantic, owned by the Northern Navigation Co., was burned to the water's edge in the Parry Sound channel Nov. 10, and stranded near Spruce island. She was making a special trip from Collingwood to Byng Inlet, and had a full cargo of freight and lumbermen's supplies, including 5 carloads of baled hay and 125 barrels of oil. A leak was discovered about 3 o'clock on Tuesday morning, and some time afterwards fire was discovered among the hay amidships. The flames spread rapidly and the passengers and crew took to the boats, nothing being saved. The Atlantic was built at Owen Sound in 1883 to replace the Manitoulin, burned in 1882 in Manitowaning bay with considerable loss of life, the unburned portion of the hull being used in the new steamer. She was owned by the Great Northern Transit Co., and traded from Collingwood to Sault Ste. Marie; subsequently this company became amalgamated with the North Shore Steamship Co., and this was afterwards merged into Northern Navigation Co. of Ontario. The Atlantic was a screw steamer, her dimensions being: length, 147 ft.; breadth, 30 ft.; depth, 11 ft.; tonnage—gross, 683 tons; net, 442 tons. She was valued at \$25,000, and was partly insured.

Manitoba and Northwest Territories.

The Hudson's Bay Co. is arranging for the construction of a sternwheel steamer, equipped for freight and passenger service, for the Peace river trade. The steamer will be constructed under the charge of Capt. Johnson, who has had the superintendence of the building of the Company's river steamers for some years.

The Western Trading Co. (Ltd.) has been incorporated under the Manitoba Companies' Act, with a capital of \$90,000, to carry on a general business, including the purchase and

operation of boats, tugs, barges and vessels of all kinds. The McMillan Bros., contractors, Westbourne, are among the promoters, and the head office is at Shoal Lake.

The Polson Iron Works, Toronto, is building the steel frame and engines for an 80 ft. steamer for Great Slave lake, Athabasca, to the order of Rev. A. Husson, Montreal, Superintendent of Roman Catholic Missions in western and northwestern Canada. The hull and engines are expected to be shipped to Edmonton, Alta., by the end of the year, from which point they will be hauled to Athabasca Landing, where the steamer will be put together.

The Hudson's Bay Co.'s barque Lady Head was wrecked on Gasket shoal, Hudson's bay, Sept. 25, while on her annual voyage to Great Britain with a valuable cargo of furs. The vessel was breaking up when she was abandoned. The crew will be kept at the Co.'s post at Moose Factory for the winter. Fears are entertained for the safety of the Co.'s schooner Mink, which has not been heard of since leaving the bay, early in Sept., for St. John's, Nfld.

The str. El Dorado, owned by Revallion Freres (Ltd.) was wrecked in Hudson's bay, and was abandoned by the crew Sept. 2. The crew and passengers landed on an island near Fort George, from which they were rescued by Hudson's Bay Co.'s schooners and taken to Fort Charles. Here they went on board the H.B. Co.'s str. Inenew, and were taken to Moose Factory, from which point they made their way by the H.B. Co.'s trading route to the C.P.R. The steamer and her cargo of supplies for the owners' trading posts are a total loss.

The Hudson's Bay Co.'s str. Inenew, built by the Polson Iron Works, Toronto, in 1902, which met with several mishaps after leaving Toronto, finally left St. John's, Nfld., Aug. 12, and reached Moose Factory, on the Ontario shores of Hudson's bay, Sept. 20. During the trip the Inenew was caught in Hudson's strait's tides and nearly swamped; on reaching Fort Charles, the shipwrecked crew and passengers of the wrecked str. El Dorado were picked up and conveyed to Moose Factory. The Newfoundland crew, who took the steamer round from St. John's, returned via the Abitibi river and across the portages to the C.P.R.

In connection with the proposal to establish a steamship service between Canada and France, for which a subsidy of \$100,000 a year for 10 years was voted at the last session of the Dominion Parliament, a Liverpool paper states that four steamers are to be purchased, two of which will sail under the British and two under the French flag.

Press reports state that the Dominion Government has completed arrangements for the early transfer of the construction and operation of canals from the Department of Railways to that of the Marine. It is understood that this arrangement was made when Hon. R. Prefontaine was appointed Minister of Marine, but could not be carried out until the necessary Parliamentary authority had been obtained.

The Dominion Parliament at its recent session passed an act amending the act respecting certificates to masters and mates of ships, the important point of which describes the expression "coasting voyage" of sea-going ships. A "coasting voyage" includes a voyage between any eastern Canadian port to any port in Newfoundland, Labrador, St. Pierre, Miquelon, or on the U.S. coast as far south as Cape Hatteras, or from any western Canadian port to any U.S. port not further south than Portland, Ore., or further north than Cape Spencer, Alaska.

B.C. and Pacific Coast Shipping.

R. G. MacPherson, M.P., is interested in a proposal to construct a dry dock at Vancouver, B.C., large enough to take in the biggest merchant vessel afloat on the Pacific ocean.

Application will be made at the next session of the B.C. Legislature for an act incorporating the Canada Fire and Marine Insurance Co. The solicitors for the applicants are Livingstone, Garrett & King, Victoria.

The M. S. Dollar Co. (Ltd.) has been incorporated under the B.C. Companies' Act, with a capital of \$180,000, for the purpose of acquiring the str. M. S. Dollar, of Victoria, and of carrying on a general navigation business.

The Western Steamship Co. (Ltd.) has been incorporated under the B.C. Companies' Act, with a capital of \$150,000, for the purpose of purchasing the str. Wyefield, of Victoria, and of carrying on a general navigation business.

The Vancouver Engineering Works propose constructing a 500 ft. extension of its wharf, and has submitted plans to the city and the Department of Marine. The additions will carry the wharf out to a point where there is 40 ft. of water alongside.

Capt. Noel, hitherto in command of the str. Nell, is forming a company in Victoria, B.C., for the purpose of building or purchasing a steamer to trade between Victoria and northern B.C. ports. The steamer will have accommodation for a number of passengers, and will carry 600 tons of cargo.

The shipping returns for the port of Vancouver for the year ended June 30, show that there were entered inwards 3,583 British vessels of 850,154 tons, and 787 foreign vessels of 556,060 tons, against 3,238 British vessels of 761,268 tons, and 764 foreign vessels of 546,615 tons for the year ended June 30, 1902.

Press reports state that the North American Transportation and Trading Co., and the Northern Commercial Co., operating in the

Yukon Territory and in Alaska, will be amalgamated. Each company has a dozen posts along the Yukon basin, and their combined fleets number about 30 steamers and 10 barges.

The New Westminster Towing and Fishing Co. (Ltd.) has placed an order for the building of the hull of a new tug locally, and an order for the engines and boilers with a firm in Glasgow, Scotland. The new tug's dimensions will be: length, 110 ft.; breadth, 20 ft.; depth, 12 ft., and the engine is expected to develop 350 h.p.

Navigation on the Yukon river closed rather unexpectedly, and a good deal of freight is lying both at Whitehorse and at St. Michael, which will have to be kept over until the spring. A despatch from Dawson, via Seattle, Wash., states that all the steamers up the Yukon for Whitehorse reached their destination, but that other steamers and cargoes, valued at \$2,000,000, remained exposed to the ice with little prospect of getting to places of safety for the winter.

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The **White Star Line** has established in addition to its regular New York-Liverpool services regular services between Boston and Liverpool (calling at Queenstown), and Boston, Azores and Mediterranean ports. The services will be operated by the large, modern, twin-screw steamers Republic, 15,400 tons; Cretic, 13,500 tons; Cymric, 13,100 tons; Canopic, 13,000 tons; Romanic, 11,400 tons, sailing regularly throughout the year to and from Boston and Liverpool (calling at Queenstown), and to and from Boston, the Azores and Mediterranean ports, and will be inaugurated at once and operated continuously. Return tickets by the White Star Line are available for their full value towards passage by any of the White Star services. Facilities will be offered for booking across the European Continent between the various ports of call in the Mediterranean and Liverpool, which will thus enable passengers to book the round trip from Boston, via the Mediterranean, returning from Liverpool to New York or Boston or vice versa.

Among the Express Companies.

The Western Ex. Co. has closed its offices at Stuben and Sturgeon River, Mich.

The Dominion Ex. Co. has reopened its wagon route between Beamsville and St. Catharines, Ont., for the winter.

The Dominion Ex. Co. has closed its stage route between St. Basil, Que., and St. David, Me., the office at the latter point being closed.

The Dominion Ex. Co. announces the following changes in names: Annville, formerly Ste. Anne de la Perade; Bruchesi, formerly Ste. Anne de Plaines; Masson, formerly Buckingham, Que.; Biscot, formerly Biscotasing; Eureka, formerly Eureka Lake; Nemegos, formerly Nemegosenda, Ont.

The Alaska Pacific Express Co. is operating a stage line between Whitehorse and Dawson, Yukon, from two to six times a week, according to the condition of the trail and the volume of the business. It is also operating a weekly dog train service between Dawson and Eagle, Alaska and Forty Mile, Yukon; a semi-weekly service from Log Cabin to Atlin, Discovery and Pine City, B.C., and a semi-monthly service from Valdez to Fairbanks, Chenoa, Fort Gibbon, Tanana and Weare, Alaska.

Telegraph and Cable Matters.

The Canadian Northern Telegraph Co. has laid a cable to connect its commercial office at the corner of Main st. and Portage avenue, with its railway telegraph office, Water st., Winnipeg.

A conference of the partners in the all-British trans-Pacific cable will shortly be held in London, Eng., at which a proposal will be made to lay a cable between Canada and Great Britain.

The Dominion Government proposes to establish a Marconi wireless station at Sable Island, N.S., and has under consideration a proposition to establish a similar station at Cape Race, Newfoundland.

R. G. Reid, of the Reid Newfoundland Co., has filed a claim for \$3,000,000 against the Newfoundland Government for losses sustained through the Government taking back from him in 1901 the control of the telegraph system of the colony.

W. M. Gibson, formerly connected with the G.N.W. Telegraph Co. and with the C.P. Telegraph department in Montreal, won the Carnegie medal for being the best all-round telegrapher, at the recent tournament of the American Telegraphers' Association.

The C. P. Telegraph department has created a new position, that of electrical engineer, to which W. J. Camp, heretofore Super-

intendent of the Eastern division, has been appointed. He will have charge of all electrical equipment on the system; office Montreal.

I. McMichael was presented with a diamond stud at a farewell dinner given him by the staff of the Western Union Telegraph Co., on leaving Minneapolis, Minn., to assume the duties of his new position as General Manager of the Great Northwestern Telegraph Co., Toronto.

The Canadian Northern Telegraph Co. has completed stringing a line for commercial purposes on its Duluth extension from Stanley Junction to Gunflint Narrows, Ont., and proposes to string a copper wire for commercial business between Port Arthur, Ont., and Winnipeg, Man.

The Australian Senate has declined to ratify the agreement made between the ex-Premier, Sir E. Barton, and the Eastern Extension Cable Co., which gave an unfair advantage to that company in competition with the state-owned all-British trans-Pacific cable, in which Canada has a very large interest.

The Chief Signal Officer of the United States, in his annual report, states that 1,470 miles of military telegraph and cable lines have been laid during the year in Alaska, and adds that preparations are being made for the installation of wireless telegraph stations at St. Michael and Nome, 108 miles apart.

N. C. Marshall, of Vancouver, B.C., has been appointed Western manager of the Marconi Wireless Telegraph Co. It is proposed to instal stations at various points in the west to connect Vancouver, Victoria, Nanaimo, Comox, and other places, thence to Skagway, Alaska, and Dawson, in the Yukon Territory.

The company controlling the Marconi system of wireless telegraph in Great Britain has begun suit against the DeForest Wireless Telegraph Co. for alleged infringement of patents. The DeForest Co., which has its Canadian headquarters in Toronto, has recently had in operation stations at Holyhead, Wales, and Howth Head, Ireland, 65 miles apart.

The Dominion Government telegraph repair steamer Tyrian recently completed a three months' trip laying cables and repairing land lines in Nova Scotia, and along the northern shores of the Gulf of St. Lawrence to Chateau bay, opposite Belle Isle. At Chateau bay new masts for the Marconi wireless telegraph system of communication between the mainland and Belle Isle were erected.

The C.P. Telegraph eastern division, hitherto extending from the Atlantic coast to Fort William, Ont., was on Nov. 1 divided, one of the new divisions, the Atlantic, extending from the coast to Megantic, Que.; and the other, the Eastern, from Megantic to Fort William. J. F. Richardson, heretofore Superintendent of Construction and Inspector, has been appointed Superintendent Eastern division; office at Montreal. P. W. Snider, heretofore local manager at St. John, N.B., has been appointed Superintendent Atlantic division, office St. John. W. P. Robinson, hitherto chief operator at St. John, has been appointed local manager at St. John, succeeding P. W. Snider.

The "magnetic storm" which was observed in Canada Oct. 30-31, appears to have been not only general from east to west in Canada, but in England, and generally all over the northern hemisphere. The lines at Winnipeg were considerably disorganized, that district being apparently right in the storm centre. So much was the system disorganized there that the C.P.R. telegraph department had to send messages by train to Fort William, Ont., where they could be dispatched. At Fort William the C.P.R. telegraphers were able to establish a circuit to Montreal, 998 miles, and send messages without batteries. The Montreal offices of the

company escaped the disturbances. At Kingston, Ont., the G.N.W. telegraph operators worked a commercial line to Toronto. J. F. Richardson, Superintendent Eastern division C.P.R. telegraph department, referring to the recent disturbances says that messages were sent over the wires from Montreal to Fort William without artificial current, the electricity coming from the earth. The telegraph wires are connected to the earth at each end, forming what is termed a "shunt." A sufficient portion of the current passing through the earth east and west, travelled over the wires and furnished the power by which signals were transmitted. This current, sometimes positive and sometimes negative, measured over 50 milliamperes, but is too intermittent to be of practical use, and its maximum is reached only every 10½ years. "I have," says Mr. Richardson, "experienced three of these cycles, and the disturbance we felt Oct. 31 was the heaviest and most widely felt. At the same time that the northern part of Canada was effected, the cables and European lines reported similar electrical phenomenon. I have reason to believe that the aurora borealis is the outward sign of this internal disturbance, and discharges from the earth around the magnetic north. There are dark spots on the sun, said to be eruptions, that appear at the same time, but I am unable to say what the connection is between these three phenomena—sun spots, aurora borealis, and earth currents."

Western Union Telegraph Co.

Comparative statement for years ended June 30, 1902, and 1903:

	1903.	1902.
Revenue	\$29,167,686 80	\$28,073,095
Expenses and taxes	20,953,215 07	20,780,766
Net revenue	\$ 8,214,471 73	\$ 7,292,329
Interest	1,077,700 00	992,580
Balance	\$ 7,136,771 73	\$ 6,299,749
Dividends	4,868,050 00	4,868,031
Surplus	\$ 2,268,721 73	\$ 1,431,718
Previous surplus	10,751,022 82	9,319,285
Total surplus	\$13,019,724 55	\$10,751,003

The capital stock is \$97,370,000. The funded debt is \$24,504,000. The Co. now has 1,089,212 miles of wire and 23,567 offices. During the past year 69,790,866 messages were sent. The average tolls for the messages transmitted were 31.4 cents and the average cost 25.6 cents. \$3,351,644.94 were expended for construction during the year, 402 miles of poles and 59,228 miles of wire being added.

General Telephone Matters.

The number of telephones in use in London, Ont., is now over 1,700.

The franchise of the Bell Telephone Co. in London, Ont., expires Dec. 4.

The Bell Telephone Co. has bought out the local telephone company heretofore doing business at Carman, Man.

The Dominion Government has laid a land cable between the two ends of Belle Isle, and fitted the same for telephonic use.

We are advised that the Bell Telephone Co. has not decided, as press reports state, to erect a new exchange building in Winnipeg in 1904.

The Canadian Machine Telephone Co., which hitherto has had its headquarters at Ottawa, has moved its offices and plant to Toronto.

The Canadian Machine Telephone Co. has made overtures to the Kingston, Ont., city council with a view of installing its telephone service there.

The Bell Telephone Co. is improving its lines between Chesley, Walkerton and Owen

Sound, Ont., and is making a number of extensions in Owen Sound.

The Bell Telephone Co. has completed a copper metallic line from Simcoe to Port Rowan, Ont., and has opened offices in connection with the line at Port Rowan, St. Williams, and Vittoria.

B. J. Thomson, of Portage la Prairie, Man., has been canvassing Dauphin, Man., with a view to establishing a telephone service, and proposes bidding for the franchise which the town is offering for sale.

At the annual meeting of the B. C. Telephones (Ltd.) at Huddersfield, Eng., Oct. 21, Dr. J. M. Lefevre, of Vancouver, B.C., and W. E. Wimpenny, of Huddersfield, were re-elected directors. Dr. Lefevre has been re-elected Chairman.

A local telephone system has been installed at Hillsboro, N.B., with nine instruments; and another line connecting the village with the Cape station, 11 miles, on which there are five instruments. These lines may be used separately or together, and a connection is also made with the system of the New Brunswick Telephone Co.

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St. John, N.B. Toronto, Ont. Vancouver, B.C.
Winnipeg, Man.

THOS. C. IRVING,

Gen. Man. Western Canada, Toronto.

The Humber Power and Lighting Co. has entered into a contract with the Toronto Junction, Ont., town council, to place in operation a telephone service in the town. The contracts are to be yearly, the price to be \$6 a year and one cent a call until \$20 a year for private house instruments and \$40 a year for business houses, has been reached. The company promises to have the system in operation within a year.

The Canadian Telephone and Telegraph Co., which was incorporated under an act passed at the last session of the Dominion Parliament, has been organized with the following officers: President, C. Robinson, Scranton, Pa.; Vice-President, R. Bickerdike, M.P., Montreal; other directors: F. J. Stegmaier, Wilkesbarre, Pa.; W. F. McCreary, M.P., Winnipeg; G. Fowler, M.P., Sussex, N.B.; Treasurer, J. R. Mears, Scranton, Pa.; Secretary, J. T. C. Thompson, Ottawa; Manager, F. J. Leonard, New York. The offices of the Company will be at Ottawa. Application has been made for franchises for telephone services in Ottawa and London.

The Bell Telephone Co. expects to have the following long distance lines in Alberta completed this fall: Calgary to Edmonton, and Lethbridge to Cardston. The completion of these lines will enable a long distance service to be maintained between Calgary, Didsbury, Olds, Lacombe, Ponoka, Red Deer, Wetaskiwin, Strathcona and Edmonton, and between Lethbridge, Raymond, Stirling, Magrath, Spring Coulee and Cardston. Between Calgary and Edmonton the line follows the Calgary and Edmonton Ry., and between Lethbridge and Cardston it follows the route of the Canadian Northwest Irrigation Co.'s line and the St. Mary's River Ry.

The Bell Telephone Co. has this year added to its long distance lines in its Northwest department the following lines: Winnipeg to Morris, Morris to Morden, Rosebank to Carman, Rosebank to Miami, Morden to Killarney, Portage la Prairie to Carberry and Brandon to Souris. In connection with these lines offices have been opened at Austin, Bagot, Alexander, Souris, Roland, Rosebank, Miami, Carman, Darlingford, Manitou, La Rivière, Pilot Mound, Killarney, Crystal City and Cartwright, Man. It is proposed to add to these lines next year lines from Macgregor to Wawanesa and from Portage la Prairie to Gladstone, and probably other extensions will be decided upon later. The single copper line heretofore in operation between Portage la Prairie and Brandon, Man., has been converted into a metallic circuit.

Structural Metal Work

Dominion Bridge Co. Montreal.
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Switch Lamps

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Switch Locks

The Hiram L. Piper Co. Montreal.

Switch Ropes

The B. Greening Co. Hamilton, Ont.

Switch Targets

Acton Burrows Co. Toronto.

Tanks and Tank Fixtures

Ontario Wind Engine and Pump Co. Toronto.

Tarpaulins and Waterproof Covers

Sonne Awning, Tent and Tarpaulin Co. Montreal

Telegraph and Telephone Office Signs

Acton Burrows Co. Toronto.

Tents

Sonne Awning, Tent & Tarpaulin Co. Montreal.

Tie Plates

B. J. Coghlin & Co. Montreal.

Tobacco and Cigars

The Hudson's Bay Company.

Toilet Paper

The Hudson's Bay Company.

Tools

Rice Lewis & Son. Toronto.

Track Jacks

James Cooper. Montreal.
W. H. C. Mussen & Co. Montreal.
A. O. Norton. Coaticook, Que.

Track Tools

Canada Switch and Spring Co. Montreal.
James Cooper. Montreal.
Rice Lewis & Son. Toronto.
W. H. C. Mussen & Co. Montreal.
The Hiram L. Piper Co. Montreal.

Tramway Equipment

James Cooper. Montreal.
W. H. C. Mussen & Co. Montreal.
J. J. Gartshore. Toronto.

Trucks (Electric Car)

Baldwin Locomotive Works. Philadelphia, Pa.
Montreal Steel Co. Montreal.

Trucks (Warehouse and Express)

Rice Lewis & Son. Toronto.

Turntables

Dominion Bridge Co. Montreal.

Varnishes

McCaskill, Dougall & Co. Montreal.

Vessels

Polson Iron Works. Toronto.

Waste

B. J. Coghlin & Co. Montreal.
Rice Lewis & Son. Toronto.
N. L. Piper Ry. Supply Co. Toronto.
The Queen City Oil Co. Toronto.

Wheelbarrows

James Cooper. Montreal.
Rice Lewis & Son. Toronto.

Windmills

Ontario Wind Engine and Pump Co. Toronto.

Window Blinds

The Hudson's Bay Company.

Wines and Liquors

The Hudson's Bay Company.

Wire and Wire Rope

Dominion Wire Rope Co. Montreal.
The B. Greening Co. Hamilton, Ont.
Rice Lewis & Son. Toronto.
W. H. C. Mussen & Co. Montreal.
The Wire and Cable Co. Montreal.

Wire, Brass and Steel

Dominion Wire Manufacturing Co. Montreal.

Wire Cloth

The B. Greening Co. Hamilton, Ont.

Wire, Copper

Dominion Wire Manufacturing Co. Montreal.
E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire, Electric

Dominion Wire Manufacturing Co. Montreal.
E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire Goods

Dominion Wire Manufacturing Co. Montreal.

Wire, Insulated Copper

E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire, Telegraph and Telephone

Dominion Wire Manufacturing Co. Montreal.
E. F. Phillips Electrical Works, Ltd. Montreal.
The Wire and Cable Co. Montreal.

Wire, Transmission and Trolley

Dominion Wire Manufacturing Co. Montreal.
The Wire and Cable Co. Montreal.

Wood Screws

Dominion Wire Manufacturing Co. Montreal.

Yachts

Polson Iron Works. Toronto.

PURCHASING AGENTS' GUIDE.

(Continued from third page of Cover.)

Station Name Signs

Acton Burrows Co. Toronto.

Steamboats

Polson Iron Works. Toronto.

Steamboat Signs

Acton Burrows Co. Toronto.

Steam Couplers

Safety Car Heating and Lighting Co. New York.

Steam Shovels

James Cooper. Montreal.
W. H. C. Mussen & Co. Montreal.

Steel

James Cooper. Montreal.
B. J. Coghlin & Co. Montreal.
Wm. Jessop & Sons. Sheffield, Eng.
Rice Lewis & Son. Toronto.

Steel Buildings

Dominion Bridge Co. Montreal.

Steel for Springs

James Hutton & Co. Montreal.

Steel Plate

Jas. W. Pyke & Co. Montreal.

Steel Tyres

B. J. Coghlin & Co. Montreal.
James Hutton & Co. Montreal.
Latrobe Steel Co. Philadelphia, Pa.
Jas. W. Pyke & Co. Montreal.

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To the Manufacturers of & Dealers in Steam & Electric Railway, Steamship, Express, Telegraph & Telephone supplies, &c.

Accident Insurance

Canadian Ry. Accident Ins. Co. Ottawa, Ont.
Travelers Insurance Co. Montreal.

Aerated Waters

E. L. Drewry Winnipeg.

Air Brakes & Fittings

Westinghouse Mfg. Co. Hamilton, Ont.

Ales

E. L. Drewry Winnipeg.

Anchors

Rice Lewis & Son Toronto.

Awnings

Sonne Awning, Tent & Tarpaulin Co. Montreal.

Axles

James Hutton & Co. Montreal.
Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Babblitt

Rice Lewis & Son Toronto.

Blankets & Bedding

The Hudson's Bay Company

Block & Tackle

Dominion Wire Rope Co. Montreal.
Rice Lewis & Son Toronto.

Boat Fittings & Hardware

Rice Lewis & Son Toronto.
Sonne Awning, Tent & Tarpaulin Co. Montreal.

Boiler Covering

Mica Boiler Covering Co. Montreal.

Bollers

Polson Iron Works Toronto.

Boiler Tubes

B. J. Coghlin & Co. Montreal.
Jas. W. Pyke & Co. Montreal.

Bolsters

Simplex Railway Appliance Co. Montreal.

Bolts

Rice Lewis & Son Toronto.

Bolts, Boiler Patch

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Brake Beams

Simplex Railway Appliance Co. Montreal.

Brass and Copper Cloth

The B. Greening Co. Hamilton, Ont.

Brass Castings

St. Thomas Brass Co. St. Thomas, Ont.

Bridge Numbers

Acton Burrows Co. Toronto.

Bridges

Dominion Bridge Co. Montreal.

Buoy Lighting

Safety Car Heating and Lighting Co., New York

Cables, Electric and Feeder

E. F. Phillips Electrical Works, Ltd., Montreal.
The Wire and Cable Co. Montreal.

Car Couplers

Latrobe Steel and Coupler Co., Philadelphia, Pa.

Car Heating

Safety Car Heating and Lighting Co., New York

Car Jacks

James Cooper Montreal.
W. H. C. Mussen & Co. Montreal.

Car Lighting

Safety Car Heating and Lighting Co., New York

Carpets

The Hudson's Bay Company

Cars

Rhodes, Curry & Co. Amherst, N.S.

Car Wheels

Jas. W. Pyke & Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Castings

Montreal Steel Co. Montreal.
Rhodes, Curry & Co. Amherst, N.S.

Cement Machinery

Jas. W. Pyke & Co. Montreal.

Chains

Rice Lewis & Son Toronto.

Coal Haulage Ropes

The B. Greening Co. Hamilton, Ont.

Concrete Mixers and Rock Crushers

W. H. C. Mussen & Co. Montreal.

Contractors' Plant

James Cooper Montreal.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Cotter Pins

Dominion Wire Manufacturing Co. Montreal.

Cross Arms, Top Pins & Side Blocks

The Firstbrook Box Co. Toronto.

Crossing Gates

The N. L. Piper Railway Supply Co. Toronto.

Curtains

The Hudson's Bay Company

Cuts

Acton Burrows Co. Toronto.

Derrick Ropes

The B. Greening Co. Hamilton, Ont.

Derriecks

James Cooper Montreal.

Door Signs

Acton Burrows Co. Toronto.

Dry Goods

The Hudson's Bay Company

Electric Car Route Signs

Acton Burrows Co. Toronto.

Electric Cranes

Dominion Bridge Co. Montreal.
W. H. C. Mussen & Co. Montreal.

Enameled Iron Signs

Acton Burrows Co. Toronto.

Engines, Stationary & Marine

Polson Iron Works Toronto.

Engraving

Acton Burrows Co. Toronto.
Toronto Engraving Co. Toronto.

Expanded Metal

Expanded Metal and Fire-Proofing Co. Toronto.

Express Office Signs

Acton Burrows Co. Toronto.

Fencing

Canadian Steel and Wire Co. Hamilton, Ont.
Dominion Wire Manufacturing Co. Montreal.
Page Wire Fence Co. Walkerville, Ont.

Fire-Proofing

Expanded Metal and Fire-Proofing Co. Toronto.

Flags

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Flour

The Hudson's Bay Company
The Ogilvie Flour Mills Co. Montreal.

Foghorns

Rice Lewis & Son Toronto.

Gates

Page Wire Fence Co. Walkerville, Ont.

General Supplies

The Hudson's Bay Company

Grain Elevators

John S. Metcalfe Co. Chicago, Ill.

Groceries

The Hudson's Bay Company

Hardware

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Headlights

The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Hose

Rice Lewis & Son Toronto.

Illustrations

Acton Burrows Co. Toronto.

Interlocking Plants

Montreal Steel Co. Montreal.

Iron

Rice Lewis & Son Toronto.

Iron Signs

Acton Burrows Co. Toronto.

Japans

McCaskey, Dougall & Co. Montreal.

Journal Bearings

Jas. W. Pyke & Co. Montreal.
St. Thomas Brass Co. St. Thomas, Ont.

Lager Beer, &c.

E. L. Drewry Winnipeg.

Lamps & Lanterns

The Hudson's Bay Company
Rice Lewis & Son Toronto.
The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Launches

Polson Iron Works Toronto.

Life Insurance

Travelers Insurance Co. Montreal.

Lights, Contractors and Wrecking

James Cooper Montreal.
W. H. C. Mussen & Co. Montreal.

Linoleum and Floor Coverings

The Hudson's Bay Company

Locomotives (Compressed Air)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Electric)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Rack)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Locomotive and Machine Co. of Montreal

Locomotives (Steam)

American Locomotive Co. New York, N.Y.
Baldwin Locomotive Works Philadelphia, Pa.
Canadian Locomotive Co. Kingston, Ont.
James Cooper Montreal.
Locomotive and Machine Co. of Montreal
The Saxon Engine Works, Chemnitz, Germany.

Machine Tools

The Saxon Engine Works, Chemnitz, Germany

Matches

The Hudson's Bay Company

Milepost Numbers

Acton Burrows Co. Toronto.

Mohair

The Hudson's Bay Company

Nails, Wire

Dominion Wire Manufacturing Co. Montreal.

Numbers

Acton Burrows Co. Toronto.

Nuts, Cold Pressed

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Oakum

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Oil

Galena-Signal Oil Co., Franklin, Pa., & Toronto.
The Queen City Oil Company Toronto.

Office Signs

Acton Burrows Co. Toronto.

Packing

The N. L. Piper Railway Supply Co. Toronto.

Pinch Bars

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Pipe Covering

Mica Boiler Covering Co. Montreal.

Plushes

The Hudson's Bay Company

Porter

E. L. Drewry Winnipeg.

Portland Cement

Rice Lewis & Son Toronto.

Printing

The Hunter, Rose Co. Toronto.
The Mail Job Printing Company Toronto.

Pumps

Rice Lewis & Son Toronto.

Railway Supplies

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Rails (New)

James Cooper Montreal.
Drummond, McCall & Co. Montreal.
J. J. Gartshore Toronto.
W. H. C. Mussen & Co. Montreal.

Rails (for relaying)

James Cooper Montreal.
J. J. Gartshore Toronto.
T. A. Morrison & Co. Montreal.
W. H. C. Mussen & Co. Montreal.
Rice Lewis & Son Toronto.
Jas. W. Pyke & Co. Montreal.

Roof Trusses

Dominion Bridge Co. Montreal.

Rope

Rice Lewis & Son Toronto.
The Hudson's Bay Company

Screws, Milled Machine

John Morrow Machine Screw Co. (Ltd.), Ingersoll

Semaphore Arms

Acton Burrows Co. Toronto.

Semaphores

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Shafting

Rice Lewis & Son Toronto.

Shipbuilders' Tools & Supplies

Rice Lewis & Son Toronto.

Ship Lamps

The Hiram L. Piper Co. Montreal.
The N. L. Piper Railway Supply Co. Toronto.

Ships

Polson Iron Works Toronto.

Shovels

James Cooper Montreal.
The Hudson's Bay Company
Rice Lewis & Son Toronto.

Side Bearings

Simplex Railway Appliance Co. Montreal.

Signal House Numbers

Acton Burrows Co. Toronto.

Signals

The Hiram L. Piper Co. Montreal.
N. L. Piper Railway Supply Co. Toronto.

Signs

Acton Burrows Co. Toronto.

Snow Ploughs

Rhodes, Curry & Co. Amherst, N.S.

Spikes

Rice Lewis & Son Toronto.

Springs

B. J. Coghlin & Co. Montreal.
Montreal Steel Co. Montreal.

(Continued on preceding page.)

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